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## Title word cross-reference 72 [Ing20].

1 [XTZ<sup>+</sup>23].  $\infty$  [RHdSOZ23]. *d* [HL20].  $\iota$  [KLL20].  $\lambda$  [FKR20, KyKS22, SC18].  $\lambda_s$  [SMC21].  $\lambda\omega$  [VS20].  $O(1)$  [AZMV23].  $\omega$  [AKK<sup>+</sup>21].  $\Pi$  [BCRA18].  $\Sigma$  [BCRA18].

**-calculi** [KyKS22]. **-calculus** [FKR20].  
**-Minimality** [XTZ<sup>+</sup>23]. **-regular** [AKK<sup>+</sup>21].

**.NET** [PVV<sup>+</sup>17].

**2KB** [KSS20].

**3C** [MKM<sup>+</sup>22]. **3CPS** [QRS22].

**abductive** [ZDDJ21]. **ableC** [KKCV17].  
**Abridging** [YMJ17]. **absorbing** [LP20].  
**Abstract** [BGMW20, BGG<sup>+</sup>20, Lem23, BCD22, CDG22, Cra19, FSSW22, FS22, JTD21, KMD<sup>+</sup>22, KyKS22, KPE18, KE19, KMP19, LYU<sup>+</sup>22, MJ20, RMH21, SPV18, VPD19, WDR18, WCR19, ZYT<sup>+</sup>19].  
**Abstracting** [BPPS19, DLNV17, MM19, SCJG21].  
**Abstraction** [SL23, ZM19, BCDG22, CKA18, CdV20, GJJ<sup>+</sup>20, JDT22, LYSM22, LRS<sup>+</sup>20, MV20, WDS18, YSHZ21].  
**Abstraction-safe** [ZM19]. **Abstractions** [CKN<sup>+</sup>23, FNB<sup>+</sup>21, KSW18]. **academia** [TRWS22]. **accelerate** [CB17].  
**Accelerating** [LS23, JSXH20]. **access**

[BP19]. **account** [vdRS22]. **accuracy** [BCK<sup>+</sup>21, FJM19, MSR20, SSH<sup>+</sup>19]. **accuracy-aware** [MSRH20, SSH<sup>+</sup>19]. **Achieving** [HLK<sup>+</sup>20]. **acquire** [AAJN18, DD22, YM21]. **across** [XCB<sup>+</sup>18]. **Actor** [BFSK20, BBB<sup>+</sup>17, CFD<sup>+</sup>17, SEP<sup>+</sup>20]. **actor-based** [BBB<sup>+</sup>17]. **Actris** [HBK20]. **ad** [JME20, SV23]. **adaptive** [WCHRP17]. **adding** [ABF20]. **ADEV** [LHSM23]. **adjoinable** [GHHW18]. **Admissible** [PT23a]. **ADO** [HKSS21]. **advanced** [CAMS20, GLTS22]. **adverbs** [LW22a]. **Adversarial** [YAY20, ABG<sup>+</sup>21]. **Aeneas** [HP22]. **affected** [MNT20]. **Affine** [DKPS23, BKPS18, ST21]. **after** [MKV18]. **again** [NJA20]. **against** [ML21, VREV19]. **Agda** [VMA19]. **age** [BCG<sup>+</sup>20]. **Agnostic** [LCT<sup>+</sup>23, XTZ<sup>+</sup>23]. **Agreement** [WJS23, JWJ<sup>+</sup>21]. **Agreement-Based** [WJS23, JWJ<sup>+</sup>21]. **ahead** [MV20]. **ahead-of-time** [MV20]. **aided** [JGW<sup>+</sup>20, NWP<sup>+</sup>18, RGSNT17, WLH<sup>+</sup>17]. **Aiming** [HKGK20]. **air** [OD18]. **AL** [CR19]. **alarms** [ZGSN17]. **Algebra** [AKL<sup>+</sup>23, BHP<sup>+</sup>19, CKA18, CA22, GHHW18, KKC<sup>+</sup>17, PC22, SHW<sup>+</sup>20, SFH<sup>+</sup>20, ZdAG22, ZH18]. **Algebraic** [PvdR23, Ahm18, BPPS18, BPPS19, BAS<sup>+</sup>18, FNB<sup>+</sup>21, Ham17, KSG22, KKPS21, MRX<sup>+</sup>19, Mor19, NPWW22, Par20, STI20, WBTR20, YD22, ZN21]. **Algebras** [KW21, PvdR23, YvGK18]. **Algebro-geometric** [GHMM23]. **algorithm** [GRB20, MS19, XK21]. **Algorithmic** [LY18, LSC<sup>+</sup>22]. **Algorithms** [FKP23, GHMM23, WBdG<sup>+</sup>23, Ell17b, LSZ22, ÖN22, WNC<sup>+</sup>19]. **alias** [CCP18b, CKP22, GM21, SAB17]. **alias-aware** [SAB17]. **Aliasing** [EBP<sup>+</sup>23, BWB<sup>+</sup>21, JDKD20]. **Alignment** [AKL<sup>+</sup>23]. **alive** [MT17]. **allocation** [SdSCQ19]. **almost** [DFD21, HFCG19, MMKK18, SV21]. **almost-sure** [DFD21, HFCG19, MMKK18]. **Alone** [KNNJ18]. **Alpaca** [MCL17]. **already** [RAT17]. **Ambiguity** [PCHB23]. **Amortized** [BKK<sup>+</sup>23, LVSZ23, CLD20, KH21, RGGH21]. **analyses** [SBEV18]. **Analysis** [FAM23, LRY23, ADN22, AD17, AMS20, ABD21, BGC20, CDG22, COHY17, CCP18b, CKP22, Cho22, CLD20, DHP18, GM21, GS17, HH20, JJO18, JLO20, JJCO17, KH21, LYSM22, LY18, LTMS18, LH22, LX19, MP21a, Mil20, QGG19, RBG<sup>+</sup>18, RGGH21, RKS18, SWYZ22, SGL<sup>+</sup>21, SAB17, SNCM19, TLM<sup>+</sup>21, TCJ20, WWC17, WKH20, WCR19, YSHZ21, YHW20, ZGSN17, ZYT<sup>+</sup>19, ZPZX21]. **analytic** [PVSK18]. **Analytical** [BKPS18]. **analytics** [HLV21]. **analyzers** [RH22]. **Analyzing** [QRS22, INN21, MH21, RH22, SSK17]. **ancestors** [FMG<sup>+</sup>20]. **anchor** [FF20]. **Andersen** [MP21a]. **Android** [BFV18, SYW<sup>+</sup>21]. **angelic** [MNB<sup>+</sup>22]. **AnICA** [RH22]. **annotations** [CC20]. **Answer** [SU23]. **Answer-Effect** [SU23]. **Anti** [CKN<sup>+</sup>23]. **Anti-unification** [CKN<sup>+</sup>23]. **any** [MM19, PXA<sup>+</sup>21]. **AnyDSL** [LBH<sup>+</sup>18]. **AOT** [Ser21]. **API** [BFSK20, FSD21, JGW<sup>+</sup>20, YNIC19]. **APIfix** [GRS<sup>+</sup>21]. **APIs** [CHJ<sup>+</sup>19, GTT21, RG23]. **APL** [HK20]. **app** [FZSN20]. **Application** [LRY23, BGC18, CNRG19, GHMM20, JLO20, JR21, SBM20, WSH<sup>+</sup>19, ZR21]. **application-specific** [BGC18, JLO20]. **Applications** [KZA<sup>+</sup>23, AMT17, AFH<sup>+</sup>18, GAGG<sup>+</sup>18, Ham17, LMM17a, MDSM19, OBL<sup>+</sup>18, WDL18]. **applicative** [MLMD19]. **Applying** [DNFK22, BSZL<sup>+</sup>18]. **Approach** [ADH<sup>+</sup>23, LL23, SSS<sup>+</sup>23, SL23, ACN18, BBRM17, CR20, HH20, HBP19, LAGN21, PES20, PS18, WR18, WCH<sup>+</sup>19]. **Approaches** [BGC23]. **ApproxHPVM** [SSH<sup>+</sup>19]. **Approximate**

[ETG19, FJM19, SFRM20, USM22].  
**approximation** [DR19, LN22, WAPJ22].  
**approximations** [MPV18, MMS<sup>+</sup>22]. **apps** [SYW<sup>+</sup>21]. **Architecture** [FSX<sup>+</sup>23, JPR22, RWNV20, Rei17].  
**architectures** [DJR18]. **argument** [RAJ<sup>+</sup>17]. **Arithmetic** [KKZ23, FK18, PUW<sup>+</sup>21, SMC19, TML<sup>+</sup>22].  
**ARM** [PFD<sup>+</sup>18, Rei17]. **Arm** [FSX<sup>+</sup>23].  
**ARMv8** [PFD<sup>+</sup>18, RWV19]. **Aroma** [LYB<sup>+</sup>19]. **array** [HHY<sup>+</sup>21, OCDR17, PJD<sup>+</sup>21, SFVJ19].  
**array-processing** [SFVJ19]. **arrays** [NcS17]. **art** [HP19]. **ask** [RvAP<sup>+</sup>20]. **ASP** [BGC23]. **aspects** [Cho22]. **Asphalion** [VREV19]. **assembly** [CGL22, SCK<sup>+</sup>20].  
**Assertion** [HHT20]. **Assertion-based** [HHT20]. **assertions** [LZY<sup>+</sup>20]. **assessing** [TBB<sup>+</sup>19]. **assessment** [ACM<sup>+</sup>18]. **assets** [CAMS20, HVH20]. **assignments** [LSSO18, SLO19]. **assisted** [CRMA20, SVR17]. **association** [SZD<sup>+</sup>17].  
**assumptions** [CTW21]. **asymptotic** [HLL20]. **asymptotically** [KJK<sup>+</sup>22].  
**Asynchronous** [AP21, AZMT18, CY19, FLMD19, GPP<sup>+</sup>21, GTT21, GMOO21].  
**atomic** [PFD<sup>+</sup>18, ZZX<sup>+</sup>20]. **Attacks** [SADC23]. **attention** [LWNN19].  
**attention-based** [LWNN19]. **auditing** [ZPG<sup>+</sup>17]. **Augmented** [ASMS20, DAY20].  
**autodiff** [PJD<sup>+</sup>21]. **autogenerating** [CR19]. **Automata** [DTSLT23, GMOO21, LKM23, AM17, THL<sup>+</sup>20, WDS17].  
**Automated** [DELT17, KTST23, MCF<sup>+</sup>22, PWSD20, TLKC18, ZMSD23, ACM<sup>+</sup>18, CTR<sup>+</sup>20, HP19, SYW<sup>+</sup>21, ZSL<sup>+</sup>22].  
**Automatic** [DPM23, GTT21, KH21, LSSO18, LHSM23, MP21b, PHXD19, SC20, SLO19, AAM<sup>+</sup>21, Ell18, Ell21, KKCV17, KJK<sup>+</sup>22, LYU<sup>+</sup>22, PXA<sup>+</sup>21].  
**Automatically** [COHY17, KKSL22, VDvG<sup>+</sup>21, BSPC19, BBZ18, DRS21, LSA18]. **Automating** [AD17, KLV23, Jab20, WKH20].

**Automation** [MK23]. **AutoPandas** [BLF<sup>+</sup>19]. **avoidance** [CSM<sup>+</sup>17]. **avoiding** [OD18, PBC<sup>+</sup>21]. **Aware** [DWH23, LVSZ23, CPY20, CEEW21, FG18, FBG20, GRXB19, HKVR21, HKSS21, MSR20, NSGH22, OMO19, PWZS21, PXA<sup>+</sup>21, SKS<sup>+</sup>19, SC20, SSH<sup>+</sup>19, SZZ<sup>+</sup>19, SHTZ<sup>+</sup>19, SAB17, WZS20]. **axiomatic** [KH18, PFD<sup>+</sup>18]. **axiomatizations** [KLMM22].

**babble** [CKN<sup>+</sup>23]. **Back** [KCB<sup>+</sup>23, MSBO23, BSLBG22, JDT22].  
**back-translation** [JDT22]. **backed** [BLF<sup>+</sup>19]. **Backend** [BBP23].  
**Backpropagation** [BMP20].  
**backpropagator** [WZD<sup>+</sup>19]. **backward** [KZK<sup>+</sup>18]. **Based** [ADH<sup>+</sup>23, BGC23, GHMM23, KO23, WJS23, ASMS20, BKN19, BKKM21, BBB<sup>+</sup>17, BSLBG22, CNRG19, CB18, CKP22, ESCL22, FDvdHP22, HHT20, HBK20, JWJ<sup>+</sup>21, JBK22a, JLO20, JKT21, KNNR17, LHP19, LLSS22, LWNN19, LZY<sup>+</sup>20, MKV18, Mil20, MJ22, MKLR20, MDBL20, NGR<sup>+</sup>22, PCAGG21, PS18, RRG<sup>+</sup>21, RFH<sup>+</sup>22, SHdM20, SM20, SCZW20, SBEV18, VMS<sup>+</sup>22, WMM20, WBS<sup>+</sup>22, BGC20].  
**basis** [KH18]. **batch** [SLDN17]. **Bayesian** [DKPS23, ŠKV<sup>+</sup>18, ŠKG18]. **BDA** [ZYT<sup>+</sup>19]. **be** [CAMS20, GJK<sup>+</sup>21, JO22].  
**Beast** [RHdSOZ23]. **before** [MKV18].  
**behavior** [BKPS18]. **behind** [SHdM20].  
**beliefs** [KNNR17]. **benefits** [SGDL20].  
**bent** [RST20]. **Berry** [BM20]. **Better** [CKN<sup>+</sup>23, KMP19, Mai17, SV21]. **between** [LMÖ<sup>+</sup>22, WDR18]. **Beyond** [Ram22].  
**BFF** [ZSL<sup>+</sup>22]. **bias** [WCBG17].  
**bidirected** [KP22, LZR21, LSZ22].  
**Bidirectional** [MKC18, ZGHH23, DK19, KH18, LCOC20, YMDW21, ZSM20]. **Big** [ZMSD23, LRV<sup>+</sup>22]. **bijections** [YF18].  
**bijjective** [MFP<sup>+</sup>18]. **binaries** [DAY20].  
**binary** [CP22, DSPC<sup>+</sup>19, MOP21, ZYT<sup>+</sup>19].

**binder** [Chl21]. **Binders** [BPPS20, CR20]. **binding** [AAC<sup>+</sup>18, QRS22]. **Bindings** [BGPT19]. **bioinformatics** [SNB<sup>+</sup>19]. **BioScript** [OLC<sup>+</sup>18]. **Bisimilarity** [JW23]. **Bisimulation** [MV19]. **Bit** [LKM23]. **bitfield** [ZSL<sup>+</sup>22]. **bitfield-manipulating** [ZSL<sup>+</sup>22]. **Blade** [VDvG<sup>+</sup>21]. **blame** [LKS<sup>+</sup>20, LGFD21, SSC<sup>+</sup>17, WMW18]. **block** [RFH<sup>+</sup>22]. **block-based** [RFH<sup>+</sup>22]. **blockchain** [HTLS22]. **blocking** [FF20, PVV<sup>+</sup>17]. **blocks** [CB17]. **blows** [BBTK<sup>+</sup>17]. **Bonsai** [CB18]. **Boolean** [MvdP20, MvdP21, PC22]. **borrow** [JDKD20]. **both** [FKR20]. **Bottom** [MNB<sup>+</sup>22, BPP20, Lee21]. **Bottom-up** [MNB<sup>+</sup>22, BPP20, Lee21]. **bound** [DR19]. **boundary** [FSSW21]. **Bounded** [BGM<sup>+</sup>23, CPKG17, WJS23, AJRG21, ABM<sup>+</sup>21, BMTZ21, BMTZ22, BGPT19, KESJ18, MJ21]. **bounded-memory** [ABM<sup>+</sup>21]. **Bounds** [FCS<sup>+</sup>23, AGLK18, HKGK20]. **Bowtie** [RHdSOZ23]. **boxes** [BSLBG22]. **bracketed** [SDB19]. **brainer** [DMS17]. **breaking** [GRS<sup>+</sup>21, MNT20]. **Bridging** [LMÖ<sup>+</sup>22, WDR18]. **broken** [AZMT18, GJK<sup>+</sup>21, HFS22]. **browser** [KSP22]. **bug** [DRS21, LWNN19, PS18]. **Bugs** [PP22, BSPC19, BFSK20, CSD<sup>+</sup>21, LRV<sup>+</sup>22, MN18, RS20, SYW<sup>+</sup>21, SJL19, WZS19]. **Build** [MMJ18, SMTH20, SCMS20, WSH<sup>+</sup>19]. **building** [DFPG21, WLH<sup>+</sup>17]. **built** [DTM<sup>+</sup>18]. **built-in** [DTM<sup>+</sup>18]. **Bullet** [CLO<sup>+</sup>23]. **bunch** [FDvdHP22]. **bunched** [FDvdHP22]. **bureaucracy** [Chl21]. **bytecode** [CNRG19, WMLK18, XK21]. **Byzantine** [VREV19, WBdG<sup>+</sup>23].

**C** [BDCN20, BBG<sup>+</sup>20, COHY17, CNH20, ESDH21, EBP<sup>+</sup>23, GLBP22, KKCv17, KLSV18, LSM<sup>+</sup>22, LBR20, MKM<sup>+</sup>22, MRdAP18, PMS<sup>+</sup>23, SCK<sup>+</sup>20, Str20, WCMH19, WXWS20, WZSK22, WCH<sup>+</sup>19, XL21, ZCH23]. **C-assembly** [SCK<sup>+</sup>20]. **C-like** [COHY17]. **C/C** [KLSV18]. **C11** [DD22, ML21, YM21]. **C11-style** [ML21]. **C4** [LyXK<sup>+</sup>22]. **CAAT** [HMdL22]. **cache** [BKPS18, BZKT21, GCY<sup>+</sup>20, XCB<sup>+</sup>18]. **caching** [BC18, WSG<sup>+</sup>20]. **CakeML** [GLPS<sup>+</sup>20, ONK<sup>+</sup>17]. **Calculating** [PH21]. **calculation** [BH22]. **Calculi** [AGK23, KyKS22, VRC22]. **Calculus** [BKK<sup>+</sup>23, BDS23, GSF<sup>+</sup>23, YTO23, ABH<sup>+</sup>21, BGM19, BMP20, CdV20, DdVMY19, FKR20, FKT21, Ham17, KLL20, Mor19, Tej20, ZK22]. **Call** [HH19, AG22, BBBK17, BCD22, FKR20, JO22, KMLD20, PWS20, ST21]. **Call-by-need** [HH19]. **call-by-push-value** [KMLD20]. **call-by-value** [AG22, FKR20, HH19, ST21]. **call-site** [JO22]. **callback** [GAGG<sup>+</sup>18]. **callbacks** [AGR<sup>+</sup>20]. **calling** [DAJE20]. **calls** [ONK<sup>+</sup>17]. **CAMP** [CPY20]. **Can** [CAMS20, RFH<sup>+</sup>22, CSD<sup>+</sup>21, JGMP22, JO22]. **canonical** [BvGKJ17, BCH<sup>+</sup>22, FJM19]. **capabilities** [BSO20, BSLBG22, CK20, GGV<sup>+</sup>21, GTB22, SDB19, SKB<sup>+</sup>22, VPD19]. **capability** [GGV<sup>+</sup>21, GTB22, SBO20, SGD17]. **capability-passing** [SBO20]. **Capturing** [KSSL18]. **care** [BPPS18]. **carte** [MMJ18, vdRPR<sup>+</sup>22]. **Case** [WL23, BGWXP22, WH19]. **cases** [CLNL22]. **cast** [MHN19]. **Casting** [MHN19]. **Casts** [CCW18, LSM<sup>+</sup>22]. **Catala** [MCP21]. **Categorical** [Mel19, ABG<sup>+</sup>21]. **categories** [CK18, CS21, Ell17a]. **category** [KyKS22]. **category-theoretic** [KyKS22]. **Causal** [CC23, DTSLT23, GGN<sup>+</sup>21]. **Causality** [CC23]. **cause** [WMW18]. **causes** [BFSK20]. **Cedille** [SJS20]. **Celsius** [BL22]. **centric** [CCP<sup>+</sup>18a, CPT19]. **cérises** [GTB22]. **CertiCoq** [PLA21]. **Certificates** [LCT<sup>+</sup>23, CMS22]. **certification**

[MMS<sup>+</sup>22, USM22, UCWZ20]. **Certified** [SBM20, HH20, JBK22b, SScWS19]. **Certifying** [IEC22, WCMH19, WGP<sup>+</sup>21]. **CFA** [JO22]. **CFL** [CMS22, KD23, Mil20, SWYZ22]. **CFL-based** [Mil20]. **changes** [BAY20, GRS<sup>+</sup>21, MNT20]. **changing** [Str20]. **channel** [FDvdHP22, GCY<sup>+</sup>20, SM20]. **channel-based** [FDvdHP22, SM20]. **channels** [BZKT21]. **Chaperone** [MP17]. **Chase** [CGL<sup>+</sup>23]. **CHC** [GTU23]. **check** [FZL18]. **checked** [MKM<sup>+</sup>22]. **checker** [GJS20]. **checkers** [PES20, RvAP<sup>+</sup>20, ZvAV22]. **Checking** [KTST23, KLV23, KPH22, AAJN18, AAJ<sup>+</sup>19, BE19, CVG<sup>+</sup>17, KLSV18, KRV19, KKT19, MKV22, SBF<sup>+</sup>20, TU22, UAM17, YNIC19, ZvAV22]. **checkpoints** [MCL17]. **chemistry** [OLC<sup>+</sup>18]. **Chez** [FDD<sup>+</sup>19]. **child** [BS17]. **chip** [OLC<sup>+</sup>18]. **Choice** [AB23, CHH<sup>+</sup>23]. **choreographies** [HG22, MYZ22]. **Circuit** [KO23]. **circuits** [HRH<sup>+</sup>21, Mat22]. **clairvoyant** [HH19]. **Clarke** [LYSM22]. **class** [BXMS19, EDWL21, HLL20, Kov20, ML20a, XCIL22, XPL<sup>+</sup>22]. **classes** [SKR20, ZM17]. **Classical** [VLRH23, KMP19]. **clauses** [BOR18, KSG22]. **Client** [QKB21]. **Client-server** [QKB21]. **Clojure** [Hic20]. **closed** [CS21]. **Closure** [PA19a, DEO<sup>+</sup>20]. **closures** [WBM<sup>+</sup>21]. **CLOTHO** [RNDJ19]. **cloud** [ZPG<sup>+</sup>17]. **clustering** [BS21]. **CN** [PMS<sup>+</sup>23]. **co** [CFD<sup>+</sup>17, CA18a]. **co-design** [CFD<sup>+</sup>17]. **Coalgebraic** [JW23]. **coarrays** [RLS20]. **Coarsening** [SZD<sup>+</sup>21]. **coaxioms** [ADZ17]. **codata** [BJSO20]. **Code** [BJP23, BBP23, MGB<sup>+</sup>23, PMS<sup>+</sup>23, ABF20, BJC<sup>+</sup>22, BCH<sup>+</sup>22, BT18, BSZL<sup>+</sup>18, BAY20, BPB<sup>+</sup>21, CL21, DFPG21, GS22, LHJ<sup>+</sup>18, LWNN19, LMM<sup>+</sup>17b, LYB<sup>+</sup>19, LC21, MCF<sup>+</sup>22, MT21, PvAPV22, RH22, SVR17, SCZW20, VPD19, VDvG<sup>+</sup>21, VN18, WNC<sup>+</sup>19, XCB<sup>+</sup>18, YAY20, YMJ17, ZBG<sup>+</sup>22]. **Code-Generating** [BJP23]. **Coeffects** [BDG<sup>+</sup>22, DG22b]. **cognitive** [DNFK22]. **Coherence** [BXMS19]. **coherency** [CFL17]. **cohesion** [Kav19]. **coin** [CY19]. **coinduction** [San22]. **cold** [BBTK<sup>+</sup>17]. **Collapsible** [FGS<sup>+</sup>18]. **Collapsing** [AR18]. **Collection** [MCP23, BDCN20, BP21, DEH<sup>+</sup>18, MP22, SHSO22, UAM17]. **collections** [DTM<sup>+</sup>18, EE18]. **collective** [EWR19]. **combating** [GRS<sup>+</sup>21]. **combination** [MR22, SdSCQ19]. **combinatorics** [Mel19]. **combinators** [WWP20]. **Combining** [DTSLT23, Lee21, LWUD21]. **Communication** [DFLL23, CHJ<sup>+</sup>19, DEO<sup>+</sup>20]. **Commutativity** [FKP23, CFKP22]. **comonadic** [Cho22]. **comonads** [CK20, HT18]. **compact** [CS21]. **Compacting** [BS21]. **Comparative** [WLJ<sup>+</sup>23]. **CompCert** [BBP23, SCK<sup>+</sup>20]. **CompCertELF** [WXWS20]. **CompCertM** [SCK<sup>+</sup>20]. **Competitive** [MAH18]. **Compilation** [CA22, HHY<sup>+</sup>21, LB23, BBP20, Cra19, KKPS21, Kov22, LVH<sup>+</sup>22, OUM18, PBC<sup>+</sup>21, RKV21, Ser21, VPD19, VCD<sup>+</sup>21, WXWS20, WZSK22, XL21, XK21]. **compile** [RAT17]. **compile-time** [RAT17]. **Compiler** [BBP23, MTDC19, AHM<sup>+</sup>17, BH22, BBF<sup>+</sup>21, BBG<sup>+</sup>20, BPB<sup>+</sup>21, CKP22, GCS<sup>+</sup>18, KKC<sup>+</sup>17, LWY<sup>+</sup>22, Mai17, PA19b, SSH<sup>+</sup>19]. **compilers** [CSD<sup>+</sup>21, CKA18, DELT17, LBR20, MSRH20, MJK<sup>+</sup>17, PH21]. **Compiling** [COER19, Ell17a, PG21, SBO20, WBTR20, NWP<sup>+</sup>18]. **Complete** [GFD19, AAR20, BKKM21, CK18, DK19, EE18, Pav20, SGL<sup>+</sup>21, UST18, VTC<sup>+</sup>18]. **completely** [vdRS22]. **Completeness** [CDG22]. **completion** [PvAPV22, WDS17]. **Complexity** [FISS20, KD23, WYT<sup>+</sup>22, AD17, BE19, DHP18, INN21, KP22, LZR21, MP21a, WWC17]. **Complexity-guided** [WYT<sup>+</sup>22]. **Component** [KO23, DEH<sup>+</sup>18, MJ22, RRG<sup>+</sup>21].

**Component-Based**

[KO23, MJ22, RRG<sup>+</sup>21]. **components** [GLSY20, KE19]. **composed** [BC18]. **Composing** [WMM20]. **composition** [KCCV17, RK22, SLDN17]. **Compositional** [DPQS18, KPE18, LSC<sup>+</sup>22, MHLG23, PLA21, SDdSO22, VSC23, BCB21, BGOS18, GJS20, HKSS21, JRB<sup>+</sup>22, KNNJ18, KSW18, SKE<sup>+</sup>20, SGD17, ZBY<sup>+</sup>21, ZXSD21]. **Compositionality** [GY23]. **compositionally** [DFD22]. **comprehensive** [BFSK20]. **Computable** [HSS23, SMC21]. **Computation** [RZ20, CT19, DSLH20, Ham17, KVT20, MW20a, Mul22, PGFP17]. **computational** [CH19, CS21, CTW21, Kes22]. **computations** [ABG<sup>+</sup>21, ADZ17, OCDR17]. **computer** [NWP<sup>+</sup>18]. **computer-aided** [NWP<sup>+</sup>18]. **Computing** [FSX<sup>+</sup>23, KCB<sup>+</sup>23, VLRH23, AFF<sup>+</sup>18, GTF<sup>+</sup>20, JPBG19, PP22, SLJ20]. **concatenation** [HJL<sup>+</sup>18]. **concentration** [BZSL19]. **conceptual** [BL22]. **Concurrency** [FG18, SL23, BFSK20, FDvdHP22, JRB<sup>+</sup>22, KESJ18, KLSV18, MDBL20, PFD<sup>+</sup>18, SM20, YM21]. **Concurrency-aware** [FG18]. **Concurrent** [FKP23, RBDO22, SP22, AG20, BP19, BHP<sup>+</sup>19, EE18, FNB<sup>+</sup>21, FKE<sup>+</sup>20, FF20, FRS<sup>+</sup>21, GSS<sup>+</sup>22, KSW18, LF18, MJP20, MJ21, MWW22, NBDF19, ÖN22, PKSW21, SFH22, SRF<sup>+</sup>20, TB19, UAM17]. **condition** [Jac21]. **Conditional** [SCL<sup>+</sup>23, WL23]. **conditioning** [DK20, NeS17]. **conditions** [GKJ<sup>+</sup>18, ZZX<sup>+</sup>20]. **cones** [EPT18]. **Confidential** [FSX<sup>+</sup>23]. **configuration** [SZD<sup>+</sup>17]. **Conflict** [ZH18]. **conjunction** [LLSS22]. **Connectivity** [JBK22a]. **Conquer** [ADH<sup>+</sup>23]. **consensus** [DEO<sup>+</sup>20]. **Consequence** [KKZ23]. **Consequence-Finding** [KKZ23]. **conservativity** [KP18b]. **Consistency** [KLV23, SFH22, AAJ<sup>+</sup>19, BE19, GKMB17, HMdL22, KSTM20, KEW<sup>+</sup>20, RMV22].

**Consistency-preserving** [SFH22]. **consistent** [HKSS21, RNDJ19]. **constant** [BBG<sup>+</sup>20]. **constant-time** [BBG<sup>+</sup>20]. **Constrained** [ME17, BOR18, KSG22]. **Constraint** [ESCL22]. **Constraint-based** [ESCL22]. **Constraints** [DGGM23, JJR23, CCH<sup>+</sup>18, CFLH<sup>+</sup>22, HJL<sup>+</sup>18, ML20a, ZHL<sup>+</sup>20]. **Constructing** [KKA19]. **construction** [DSPC<sup>+</sup>19, LYU<sup>+</sup>22, SPV18]. **constructors** [JME20]. **container** [WYT<sup>+</sup>22]. **Context** [BMTZ21, BMTZ22, BGM<sup>+</sup>23, LL23, FSD21, JJO18, JJCO17, LSDZ22, LTMS18, LWNN19, LH22, LX19, PP20, PXA<sup>+</sup>21, SWYZ22, TLM<sup>+</sup>21]. **context-aware** [PXA<sup>+</sup>21]. **context-based** [LWNN19]. **Context-Bounded** [BGM<sup>+</sup>23, BMTZ21, BMTZ22]. **Context-Free** [BGM<sup>+</sup>23, FSD21, LSDZ22]. **context-sensitive** [LH22, PP20, SWYZ22]. **context-sensitivity** [JJCO17]. **Contextual** [FCY<sup>+</sup>20, SCL<sup>+</sup>23, WCGC18, ZN21, BAY20, Jab20, JGMP22, TSKJB18, ZA22]. **continuation** [ABD21]. **continuation-passing** [ABD21]. **Continuations** [SU23, CA18b, COER19, PG21, TB19]. **continuity** [BCDG22, SMC19]. **continuous** [BKMMP19, WCGC18]. **contract** [AGR<sup>+</sup>20, BEM<sup>+</sup>21, MNTHV21, NGTHV18, SNJ<sup>+</sup>19]. **contraction** [KPP21]. **contracts** [ASD<sup>+</sup>21, CGL22, CWG<sup>+</sup>22, END<sup>+</sup>18, FGS<sup>+</sup>18, GKJ<sup>+</sup>18, GLTS22, GAGG<sup>+</sup>18, HFS22, MP17, SGL<sup>+</sup>21, WZS19, WCD17, WMW18, ZBS<sup>+</sup>22]. **Control** [KCB<sup>+</sup>23, AFF<sup>+</sup>18, BGMW20, DAY20, FBP<sup>+</sup>21, FKL17, GSW21, HLL20, KKSL22, PSY<sup>+</sup>20, Ram22, RMH21, SDB19, ZSM20]. **control-flow** [KKSL22]. **controlled** [MDBL20]. **conventions** [DAJE20]. **conversion** [AÖV18, Ada19, DMS17, PA19a]. **convex** [MMS<sup>+</sup>22]. **coordination** [BNS20, MYZ20]. **Copilot** [BJP23]. **Copy** [XK21, UAM17].

**Copy-and-patch** [XK21]. **copying** [UAM17]. **coq** [BSZL<sup>+</sup>18, ADH<sup>+</sup>23, AHM<sup>+</sup>17, BCH<sup>+</sup>22, CHH<sup>+</sup>23, KZK<sup>+</sup>18, SM19, SBF<sup>+</sup>20, yXZH<sup>+</sup>20]. **CoqQ** [ZBS<sup>+</sup>23]. **Core** [GSF<sup>+</sup>23]. **coroutine** [Spi17]. **coroutines** [IEC22]. **Corpse** [MNTHV21]. **correct** [ASD<sup>+</sup>21, DSPC<sup>+</sup>19, FKE<sup>+</sup>20, FSD21, KJK<sup>+</sup>22, QSL17, SBF<sup>+</sup>20]. **correct-by-construction** [DSPC<sup>+</sup>19]. **correction** [LSSO18]. **Correctly** [KZA<sup>+</sup>23, LAGN21, LN22, PG21]. **Correctness** [FSY<sup>+</sup>18, ZDS23, BKV<sup>+</sup>21, LSA18, PA19b]. **correlated** [ZPG<sup>+</sup>17]. **correlation** [BAS<sup>+</sup>18, GRB20]. **Cosmo** [MJP20]. **cost** [AMS20, ABD21, CPY20, DFS18, GLPS<sup>+</sup>20, KNJ<sup>+</sup>22, MH21, NSGH22, QGG19, RBG<sup>+</sup>18, RGGH21, WKH20, WAA22]. **cost-aware** [CPY20, NSGH22]. **costs** [BDA20, CCW18, OD18]. **Countable** [AB23]. **counter** [HC21]. **Counterexample** [GRB20]. **Counterexample-guided** [GRB20]. **countering** [GFFS17]. **counting** [LL22, THL<sup>+</sup>20]. **counting-set** [THL<sup>+</sup>20]. **coupled** [VVB22]. **coupling** [AH18]. **couplings** [VVB22]. **course** [Ch121]. **Coverage** [LHP19, LWY<sup>+</sup>22, GJS20]. **Coverage-guided** [LWY<sup>+</sup>22]. **CPS** [BCRA18, DMS17, ST21]. **CPU** [IDSW21]. **CPU/FPGA** [IDSW21]. **crashing** [SYW<sup>+</sup>21]. **CRDTs** [LPM<sup>+</sup>22, NGR<sup>+</sup>22, WMM20]. **credits** [SGT<sup>+</sup>22]. **crisis** [EDWL21]. **Cross** [DEH<sup>+</sup>18]. **Cross-component** [DEH<sup>+</sup>18]. **crowded** [Str20]. **Cryptographic** [GSF<sup>+</sup>23, VDvG<sup>+</sup>21]. **Cubical** [VMA19, CH19]. **CUDA** [MH21]. **Customizable** [WKN<sup>+</sup>23]. **Cutting** [CGL<sup>+</sup>23]. **cycle** [MW20b]. **Cyclic** [KPP21, TU22]. **cyclic-proof** [TU22].

**D** [BAP20]. **Dargent** [CLO<sup>+</sup>23]. **dark** [MHN19]. **Data** [CCP<sup>+</sup>18a, CLO<sup>+</sup>23, JJCO17, PSW21, RHdSOZ23, SSSC<sup>+</sup>22, ZMSD23, ZDDJ21, BJSO20, Cha20a, CCP18b, CWG<sup>+</sup>22, Coh18, DLC22, DAB<sup>+</sup>21, ECK<sup>+</sup>22, FMTSL20, GTF<sup>+</sup>20, IS18, JJO18, KSG22, KPSJ19, KRV<sup>+</sup>21, KSW18, LRGC19, LPR<sup>+</sup>20, MGT21, MW20b, MM19, PJP<sup>+</sup>18, QSL17, SSC<sup>+</sup>17, WDS17, WCMH19, WBW<sup>+</sup>20, WCBG17, YvGK18, YDJD21, YD22, YC22]. **Data-centric** [CCP<sup>+</sup>18a]. **data-dependence** [CCP18b]. **Data-driven** [JJCO17, SSSC<sup>+</sup>22, ZDDJ21, JJO18, SSC<sup>+</sup>17]. **data-structure** [QSL17]. **database** [RNDJ19, RS20, WDLCL18]. **database-driven** [WDLCL18]. **Dataflow** [MKLR20, BBP20, HKVR21, SAB17]. **Dataflow-based** [MKLR20]. **Datalog** [BGC20, BGC23, ML20a, RMZ<sup>+</sup>20, SBEV18]. **Datatype** [KCL22, JR21]. **Datatype-generic** [KCL22]. **datatypes** [EC22, JME20, SMC21, XEdSO20]. **day** [BPPS20]. **dead** [BBTSTH17]. **Deadline** [CSM<sup>+</sup>17, JB23, JBK22a, JBK22b, KP18a]. **debugging** [CN22, CG21, LZY<sup>+</sup>20, PN17]. **Decentralized** [SSS<sup>+</sup>23, ZBS<sup>+</sup>22]. **Decidability** [AÖV18, KP22]. **Decidable** [KM23, MPAG20, CCH<sup>+</sup>18, Ham17, HL20, KLO<sup>+</sup>22, MP20, PLSS17]. **Deciding** [AAB<sup>+</sup>21, AKK<sup>+</sup>21, BCK<sup>+</sup>21, MMK<sup>+</sup>20]. **declarative** [CFKP22, HLV21, NPZ<sup>+</sup>20, RvAP<sup>+</sup>20]. **Declassification** [MHLG23]. **decoders** [DSPC<sup>+</sup>19]. **decompilation** [GLTS22]. **decompiling** [NWP<sup>+</sup>18]. **decomposing** [SPV18, WMM20]. **Decomposition** [BJSO20, RFH<sup>+</sup>22]. **Deconstructing** [BDS23]. **Deductive** [CMP20, FMTSL20, LCT<sup>+</sup>23, LWUD21]. **Deep** [SADC23, SGL<sup>+</sup>21, ZPZX21]. **DeepBugs** [PS18]. **DeepSEA** [SScWS19]. **default** [LMM17a]. **defeating** [DMB20]. **defects** [RAJ<sup>+</sup>17]. **define** [CR20]. **defined** [FKLP17]. **Definitional** [GCST19, DLNV17, PRT<sup>+</sup>18, WDR18, vdRPR<sup>+</sup>22]. **Definitions** [MHLG23, KP18b, RSY21].

**DéjàVu** [LMM<sup>+</sup>17b]. **delayed** [ABM<sup>+</sup>21]. **Delimited** [SU23, CA18b, FKLP17]. **demand** [PPSW20, SNCM19]. **demand-driven** [PPSW20, SNCM19]. **Demystifying** [WZD<sup>+</sup>19]. **Denotational** [CLD20, SKV<sup>+</sup>18, LCTS<sup>+</sup>20]. **dense** [KRV<sup>+</sup>21]. **deoptimization** [BBF<sup>+</sup>21, FSY<sup>+</sup>18]. **Dependence** [GRXB19, LVSZ23, BGHT22, CCP18b, ZYT<sup>+</sup>19]. **Dependence-Aware** [LVSZ23, GRXB19]. **dependencies** [JRB<sup>+</sup>22, PNPW22, SMTH20]. **dependency** [Cho22, TCJ20]. **Dependent** [CBTB20, SU23, AVW17, CFLH<sup>+</sup>22, CEEW21, CA18a, CA18b, DFS18, ETG19, FKT21, GSB19, LZ18, MPAG20, NVD17, PT20, RKHL17, RL19, SJL19, TV20, WFC<sup>+</sup>20, WVdAE17, WCVE19, YAC21]. **Dependently** [CDD<sup>+</sup>19, ECK<sup>+</sup>22, EGT22, FRS<sup>+</sup>21, PH21, SM19, SRF<sup>+</sup>20, Tej20, VMA19]. **Dependently-typed** [ECK<sup>+</sup>22, PH21, SM19]. **derivation** [DSPC<sup>+</sup>19, IEC22, LZ18]. **Derivative** [HBP19, JKT21]. **derivative-based** [JKT21]. **derivatives** [HBP19]. **derive** [ZvAV22]. **derived** [RvAP<sup>+</sup>20]. **Deriving** [LA21, KPW18, KKSL22, PES20]. **descendants** [FMG<sup>+</sup>20]. **deserves** [Coh18]. **Design** [CNRG19, BCC<sup>+</sup>18, CFD<sup>+</sup>17, GV19, MRG18, NWP<sup>+</sup>18, WSG<sup>+</sup>20]. **Designing** [TGKV20]. **Designs** [WLJ<sup>+</sup>23, ZR21]. **despite** [HFS22]. **dessert** [GLPS<sup>+</sup>20]. **desugarings** [BCB21]. **Detecting** [MNT20, RAJ<sup>+</sup>17, WZS19, ZZX<sup>+</sup>20, BZKT21, SCMS20, SYW<sup>+</sup>21]. **Detection** [AZMV23, AMT17, BGOS18, DMB20, DRS21, GRXB19, GAGG<sup>+</sup>18, LWNN19, MKV18, PS18, SLO19, WAA22, WCBG17, ZPZX21]. **Deterministic** [KVT20, SLDN17, UST18]. **development** [WKS18]. **devices** [PGFP17]. **diagnosis** [LSSO18, LSZ<sup>+</sup>20, SSC<sup>+</sup>17]. **Diagrammatic** [BHP<sup>+</sup>19]. **Diagrams** [BDS23]. **Diamonds** [BGM21]. **dictionaries** [SHSO22]. **dictionary** [EZYS22]. **dictionary-passing** [EZYS22]. **did** [WC17]. **Difference** [XHdSO23, YF18]. **differences** [BFSK20]. **Different** [AGK23]. **differentiable** [AP20, SFVJ19, SZD<sup>+</sup>21, SMC21, WZD<sup>+</sup>19]. **differential** [ADN22, AH18, BCK<sup>+</sup>21, KNSA20, NDA<sup>+</sup>19, WCHRP17, ZRH<sup>+</sup>19, ZRH<sup>+</sup>20]. **Differentially** [ZHL<sup>+</sup>20, SA19]. **Differentially-private** [ZHL<sup>+</sup>20]. **Differentiation** [LHSM23, Ell18, Ell21, KJK<sup>+</sup>22, LYU<sup>+</sup>22, MP21b]. **diffing** [MS19]. **DiffStream** [KNSA20]. **Digging** [JGW<sup>+</sup>20]. **Dijkstra** [MAA<sup>+</sup>19, SZ21]. **dimensional** [DR19]. **DimSum** [SSS<sup>+</sup>23]. **Direct** [MSBO23, ZGHH23, MKC18]. **directed** [CPB<sup>+</sup>22, FSSW22, GTB22, OUM18, RNDJ19]. **discipline** [VHEZ21]. **Discover** [DTSLT23]. **discovery** [JGW<sup>+</sup>20]. **discrete** [HVM20, SFRM20]. **Disentanglement** [WYFA20]. **dispatch** [BCG<sup>+</sup>20, FCY<sup>+</sup>20, PHSR19, PP20]. **distancing** [DG22a]. **Distributed** [CHJ<sup>+</sup>19, GGN<sup>+</sup>21, WJS23, WKS18, ABIK22, BvGKJ17, BGMW20, BVG19, DPQS18, GHMM20, GKMB17, GLSY20, HKSS21, JWJ<sup>+</sup>21, KEW<sup>+</sup>20, LMÖ<sup>+</sup>22, MDMS19, OMN<sup>+</sup>18, OMO19, PLSS17, SKS<sup>+</sup>19, SWT18, SKE<sup>+</sup>20, VHEZ21]. **Distributing** [HdSO21]. **distribution** [BBB<sup>+</sup>17]. **distributions** [SFRM20]. **divergence** [RMH21]. **Divergent** [FCS<sup>+</sup>23, ADZ17]. **diversity** [BJSO20]. **Divide** [ADH<sup>+</sup>23]. **Divide-and-Conquer** [ADH<sup>+</sup>23]. **Do** [GLPS<sup>+</sup>20, AMP<sup>+</sup>20, UdM22]. **Does** [LKS<sup>+</sup>20, MTDC19]. **domain** [BKF20, PLS<sup>+</sup>19, SDdSO22]. **domain-specific** [BKF20, PLS<sup>+</sup>19, SDdSO22]. **domains** [SPV18]. **don't** [GFFS17]. **DOT** [BGWXP22, GST<sup>+</sup>20, KLL20, RL19]. **Doubly** [WJS23]. **Doubly-Unbounded**

[WJS23]. **Down** [BOW<sup>+</sup>23, BCB21, Lee21]. **DProf** [BVG19]. **driven** [GBR<sup>+</sup>20, JJO18, JCO17, MJK<sup>+</sup>17, PPSW20, SSC<sup>+</sup>17, SSSC<sup>+</sup>22, SNCM19, VHEZ21, WDLC18, ZBS<sup>+</sup>22, ZDDJ21]. **DSL** [ZYB<sup>+</sup>18]. **Dual** [SV23, UTGK23, LYSM22, PWK<sup>+</sup>22, ZRH<sup>+</sup>20]. **Dual-Numbers** [SV23]. **duality** [HdSO21, PWK<sup>+</sup>22]. **Duet** [NDA<sup>+</sup>19]. **duplicates** [LMM<sup>+</sup>17b]. **Duplo** [LJ20]. **Durable** [BGJ<sup>+</sup>21, DRV23, ZFS<sup>+</sup>19]. **DWARF** [BKN19]. **DWARF-based** [BKN19]. **Dyck** [CCP18b, KP22, LZR21, LSZ22, LZR23, SWYZ22]. **Dyck-CFL** [SWYZ22]. **Dyck-reachability** [LZR21, LSZ22]. **Dynamic** [AZMV23, FKRS23, MSI19, PP20, AFF<sup>+</sup>18, BDA20, CCP<sup>+</sup>18a, CPT19, CA22, DTM<sup>+</sup>18, DPQS18, FSY<sup>+</sup>18, JSXH20, KMGV22, LAF<sup>+</sup>20, LP20, LSZ22, LSC<sup>+</sup>22, MKV18, MRG18, Pav20, SPKT18, WCBG17]. **dynamic-priority** [LSC<sup>+</sup>22]. **dynamically** [CHJ<sup>+</sup>19, INN21]. **dynamically-instantiated** [CHJ<sup>+</sup>19]. **dynamism** [BCC<sup>+</sup>18]. **DynamiTe** [LAF<sup>+</sup>20]. **Dynaplex** [INN21].

**E-Graphs** [CKN<sup>+</sup>23]. **e-matching** [ZWWT22]. **early** [Sym20]. **easy** [Par20]. **ECROs** [DFPG21]. **edge** [DWZ20]. **edit** [MGL<sup>+</sup>19, ZBG<sup>+</sup>22]. **Editorial** [Wad17]. **edits** [PBS<sup>+</sup>17]. **education** [CDH17]. **Effect** [BSO18, MJK<sup>+</sup>17, SU23, XBH<sup>+</sup>20, BPPS20, BSO20, FKLP17, GLBP22, GCS<sup>+</sup>18, KKPS21, LLB<sup>+</sup>20, SBO20, XL21, XCIL22, YW21, ZM19, dVP21]. **Effect-driven** [MJK<sup>+</sup>17]. **Effectful** [BBP23, DG22a, KyKS22, MJ22, SRF<sup>+</sup>20]. **Effective** [KLSV18, KRV19, LVSZ23, ZGSN17, MN18, TTS18]. **effectively** [BKV<sup>+</sup>21, GAGG<sup>+</sup>18, Pav20]. **effectiveness** [WZS20]. **Effects** [BSO20, BSLBG22, HLL20, PvdR23, Ahm18, AP21, BPPS18, BPPS19, BAS<sup>+</sup>18, DG22b, FKLP17, HK22, HT18, HC21, MvdP20, NPWW22, PT20, STI20, SM20, SB19, WBTR20, ZN21]. **efficiency** [ADV21, HLL20]. **Efficient** [AAM<sup>+</sup>21, CFL17, GGV<sup>+</sup>21, JKXH23, KKPS21, KRV<sup>+</sup>21, LSZ22, SFVJ19, SV23, ZFS<sup>+</sup>19, ACN18, AWA21, AYB<sup>+</sup>22, BCD22, GTB22, GXD20, KJK<sup>+</sup>22, LA21, MS19, MNTHV21, MT21, ONK<sup>+</sup>17, SCJG21, SC20, SBM20, SAB17, WNC<sup>+</sup>19, WHZ<sup>+</sup>19, XL21, YSHZ21]. **efficiently** [HJL<sup>+</sup>18]. **egg** [WNW<sup>+</sup>21]. **Elaborating** [CA18a]. **Elaboration** [Kov20, PvdR23]. **elaborator** [KCL22]. **elementary** [LN22]. **Elements** [GD23, LP20]. **ELF** [WXWS20]. **Eliminating** [MV20, VDvG<sup>+</sup>21]. **elimination** [CLNL22, DS17, OBS<sup>+</sup>22, PT20]. **Elipmoc** [GLTS22]. **elision** [LP20]. **Emacs** [MS20]. **embedded** [PZR<sup>+</sup>17]. **embedding** [NA18, SCZW20]. **embedding-projection** [NA18]. **embeddings** [Chl21, LW22a, SDdSO22, WWGW20]. **embracing** [UdM22]. **empirical** [CAMS20, GCS<sup>+</sup>18, KSTM20, MHN19, PP22]. **empirically** [TGKV20]. **Empowering** [MT18]. **Enabling** [MSRH20, WJS23, ZBS<sup>+</sup>22]. **encapsulation** [SDB19, TSKJB18]. **encoders** [DSPC<sup>+</sup>19, GXD20]. **End** [CC22, RFH<sup>+</sup>22]. **End-to-end** [CC22]. **end-users** [RFH<sup>+</sup>22]. **Endpoint** [GY23, CHJ<sup>+</sup>19]. **Enforcing** [MGB<sup>+</sup>23, NDA<sup>+</sup>19, SDB19]. **engineering** [DAY20]. **enhanced** [San22]. **enhancement** [PXA<sup>+</sup>21]. **Enhancing** [MKV18]. **entangled** [KGdV<sup>+</sup>22]. **Entanglement** [WAA22, YMC22]. **enumeration** [Lee21, vdRS22]. **enumerative** [BPP20]. **environments** [FZSN20]. **epoch** [RV18]. **EPR** [PLSS17]. **Equality** [PT23b, EGT22, KFM21, NWZ<sup>+</sup>21, PT22, WNW<sup>+</sup>21]. **Equational** [GSF<sup>+</sup>23, LL23, Mor19]. **Equations** [SM19]. **equivalence** [AAJ<sup>+</sup>19, BCG<sup>+</sup>21, CRMA20, Jab20, KPH22, Mil20, WCGC18, WDLC18, ZA22].

**Equivalences** [TTS18, TSKJB18]. **erasure** [SBF<sup>+</sup>20, Tej20]. **error** [CN22, SEG<sup>+</sup>22, WCC17, WCH<sup>+</sup>19]. **errors** [BBZ18, CN22, DdVMY19, LSSO18, SSC<sup>+</sup>17, SLO19, WC17, ZZ<sup>+</sup>20]. **essence** [DLC22, Ell18, Par20]. **estimation** [MSRH20]. **Eta** [RHdSOZ23]. **Ethereum** [BEM<sup>+</sup>21, GKJ<sup>+</sup>18, GLTS22, LGTS20, SGL<sup>+</sup>21, WZS19]. **eval** [BCG<sup>+</sup>20, GDBK<sup>+</sup>21, PGIY20]. **evaluate** [LGFD21]. **Evaluating** [CBA17]. **evaluation** [AVW17, AK20, BT18, BP18, LBH<sup>+</sup>18, LCOC20, MKC18, MH21, PPSW20, PNWT22]. **even** [JO22]. **event** [BAS<sup>+</sup>18, VHEZ21, ZBS<sup>+</sup>22]. **event-driven** [VHEZ21, ZBS<sup>+</sup>22]. **events** [Jac21]. **eventual** [GKMB17]. **Every** [Coh18]. **everywhere** [KMV19]. **evidence** [XL21]. **evidently** [XBH<sup>+</sup>20]. **Evolution** [MS20, CNH20, Ing20]. **evolving** [HH20]. **Exact** [CMcS23, HVM20, SMC19]. **Example** [CGL<sup>+</sup>23, ASMS20, JSXH20, VLG21, WFB<sup>+</sup>20]. **example-based** [ASMS20]. **examples** [BFV18, GS22, GDM20, IS18, YAY20]. **ExceLint** [BBZ18]. **Exceptional** [FLMD19, PTFT19]. **Executable** [GB20, ZBY<sup>+</sup>21]. **executables** [ZYT<sup>+</sup>19]. **Executing** [KZA<sup>+</sup>23]. **Execution** [LS23, MGB<sup>+</sup>23, AJRG21, BGC18, CKT18, CB17, CN22, GCY<sup>+</sup>20, KHL22, MCL17, MNB<sup>+</sup>22, MKV22, NPZ<sup>+</sup>20, SLHR22, WBTR20, WMLK18, ZBS<sup>+</sup>22]. **exhaustive** [AJRG21, CPKG17]. **existential** [EDWL21]. **existentials** [DK19]. **Expansion** [RHdSOZ23]. **expectation** [ABH<sup>+</sup>21, BKKM21]. **expectation-based** [BKKM21]. **expectations** [WKH20]. **Expected** [BKK<sup>+</sup>23, LHSM23, ABD21, BEG<sup>+</sup>18, WFC<sup>+</sup>20, WKH20]. **experience** [ACM<sup>+</sup>18, AHM<sup>+</sup>17, BRS18, BS17, BSZL<sup>+</sup>18, CDD<sup>+</sup>19, FDD<sup>+</sup>19, HP19, HTLS22, RK22, TRWS22, YW19]. **experiment** [RFH<sup>+</sup>22]. **experiments** [TBB<sup>+</sup>19]. **explain** [RSPC17]. **explodes** [BT18]. **Exploiting** [KNNR17, CFL17]. **exploring** [CKP22]. **Exposing** [GCY<sup>+</sup>20]. **expressing** [HLK<sup>+</sup>20]. **Expression** [LKM23, SJS20]. **Expressions** [LC23, LP20, MKTD17, PHXD19]. **Expressive** [DGGM23, BKKM21, FKL17, LWUD21, NDA<sup>+</sup>19, XLD20]. **expressiveness** [PMD21]. **ext4** [KKRV21]. **extended** [SWYZ22]. **Extending** [RMV22]. **Extensible** [RHdSOZ23, KKCV17, KJJ<sup>+</sup>18, MM19, SRF<sup>+</sup>20, WNW<sup>+</sup>21]. **extension** [YvGK18]. **extensionality** [BGG<sup>+</sup>20]. **extensions** [KKCV17]. **extent** [QRS22]. **extracting** [HWC<sup>+</sup>21]. **extraction** [CLD20, KMLD20].

**f** [JGMP22, RHdSOZ23]. **F#** [Sym20]. **F\*** [PZR<sup>+</sup>17]. **failure** [LSZ<sup>+</sup>20]. **failures** [HKSS21, ZPG<sup>+</sup>17]. **Fair** [CP22, LNO<sup>+</sup>21]. **Fairness** [MWA19, ADDN17, BZSL19, UCWZ20]. **FairSquare** [ADDN17]. **Familia** [ZM17]. **Familial** [Hir19]. **families** [ME17]. **family** [ZM17]. **Farkas** [LFY<sup>+</sup>22]. **Fast** [CVG<sup>+</sup>17, CN22, GTF<sup>+</sup>20, JW23, Pav20, WNW<sup>+</sup>21, BKN19, BPB<sup>+</sup>21, LH22, LX19, PUW<sup>+</sup>21, SV21, Tit22, USM22, WCR19, WSH<sup>+</sup>19, XK21]. **Faster** [Spi17, WMLK18]. **Fat** [ZCH23]. **Fault** [Per18, WBg<sup>+</sup>23, BGC18, HKSS21, LZ17, MDSM19, VHEZ21]. **fault-aware** [HKSS21]. **fault-tolerant** [MDSM19, VHEZ21]. **faults** [SCMS20, VREV19]. **Featherweight** [GHK<sup>+</sup>20]. **features** [COHY17, JLO20]. **Feedback** [GBR<sup>+</sup>20]. **Feedback-driven** [GBR<sup>+</sup>20]. **Feller** [BCDG22]. **Few** [SADC23]. **Few-Pixel** [SADC23]. **FFT** [Ell17b]. **fibrations** [MPV18]. **fibred** [Ahm18]. **file** [SZD<sup>+</sup>17]. **files** [WXWS20]. **Finding** [AZMT18, BT18, KKZ23, LRV<sup>+</sup>22, RS20, BBZ18, DNFK22]. **Fine** [KD23, FSK<sup>+</sup>22, Kes22, MP21a]. **Fine-Grained**

[KD23, FSK<sup>+</sup>22, Kes22, MP21a]. **Finitary** [OUM18]. **finite** [KM22, WDS17]. **fire** [PT20]. **First** [XCIL22, EDWL21, HLL20, Kov20, ML20a, MKV18, NJA20, PHL<sup>+</sup>18, WBE20].

**First-class** [XCIL22, EDWL21, HLL20, Kov20, ML20a]. **first-order** [PHL<sup>+</sup>18]. **fitch** [BGM19, VRC22]. **fitch-style** [BGM19, VRC22]. **fix** [BSPC19]. **fixed** [WC17]. **fixing** [FGS<sup>+</sup>18]. **Fixpoint** [BKMM19, UTGK23, CTR<sup>+</sup>20, KVT20]. **Fixpoints** [ML20a, GMOO21, MPB<sup>+</sup>22]. **flaky** [LWW<sup>+</sup>20]. **FlashFill** [CGL<sup>+</sup>23]. **FlashProfile** [PJP<sup>+</sup>18]. **Flexible** [yKMUW22]. **floating** [Ada19, LAGN21, ZZX<sup>+</sup>20, ZGS<sup>+</sup>22]. **floating-point** [ZZX<sup>+</sup>20, ZGS<sup>+</sup>22]. **flow** [AFF<sup>+</sup>18, DAY20, Kav19, KKSL22, KSW18, PSW21, PSY<sup>+</sup>20, Ram22, RMH21, SDB19, SGL<sup>+</sup>21, SCZW20, ZSM20, ZK22]. **Flow2Vec** [SCZW20]. **FlowCFL** [Mil20]. **Fluent** [RG23, YNIC19]. **fly** [MGL<sup>+</sup>19]. **focusing** [RZ20]. **FOL** [MPB<sup>+</sup>22]. **fold** [JGW<sup>+</sup>20]. **forever** [BGM21, SZ21]. **forking** [LyXW21]. **Formal** [BBG<sup>+</sup>20, FS22, HPRW21, JPBG19, MJ21, YZZ22, DAB<sup>+</sup>21, EUR<sup>+</sup>17, GB20, LRS<sup>+</sup>20, PNWT22, SLJ20, ZBY<sup>+</sup>21, Rei17]. **formalising** [RWV19, RMV22]. **formalization** [BP19, ZdSOS19]. **formalized** [HVK19]. **formalizing** [RL19]. **Formally** [BBF<sup>+</sup>21, BBP23]. **Format** [CKA18]. **formats** [DSPC<sup>+</sup>19, GLR<sup>+</sup>20]. **formula** [BBZ18, BJC<sup>+</sup>22]. **formulas** [KM22]. **Formulog** [BGC20]. **Fortran** [RLS20]. **forward** [SCJG21]. **Foundation** [ZDS23, PNWT22, SLJ20]. **Foundational** [ZBS<sup>+</sup>23, ZSL<sup>+</sup>22]. **Foundations** [BBBK17, KSTM20, LMP18, AFH<sup>+</sup>18, BGWXP22, DAB<sup>+</sup>21, HVK19, JPBG19, JJKD18, OBL<sup>+</sup>18]. **FPGA** [IDSW21]. **FPL** [PUW<sup>+</sup>21]. **FR** [HVK19]. **Fractional** [DMS22, CS21]. **fragments** [GM21, HL20].

**frame** [LL22]. **Framework** [AGK23, BL22, CTR<sup>+</sup>20, EUR<sup>+</sup>17, GSS<sup>+</sup>22, KKC17, KJJ<sup>+</sup>18, LBH<sup>+</sup>18, LZ18, LJ20, MA18, NSGH22, PJP<sup>+</sup>18, SSK17, SHW<sup>+</sup>20, SSK22, WCHRP17]. **Free** [BGM<sup>+</sup>23, JB23, AJSW17, BDYG<sup>+</sup>21, CN22, Coh18, FSD21, GAGG<sup>+</sup>18, LSDZ22, MW20b, RST20, TTS18, YvGK18, ZGS<sup>+</sup>22, ZFS<sup>+</sup>19, ZvAV22]. **freedom** [JBK22a, JBK22b]. **FreezeML** [ESCL22]. **frequency** [ZHL<sup>+</sup>20]. **friendly** [WCC17]. **Full** [CdV20, BCDG22, JDT22]. **Fully** [Cra19, JTD21, KyKS22, SYW<sup>+</sup>21, KMP19, RL19, VPD19]. **fully-abstract** [KMP19]. **function** [CCH<sup>+</sup>18, FCY<sup>+</sup>20, Kov20, LN22, OBL<sup>+</sup>18, ONK<sup>+</sup>17]. **Functional** [DTSLT23, LC23, LB23, NWP<sup>+</sup>18, RG23, ŠKG18, SHSO22, ZMSD23, ACM<sup>+</sup>18, ACF17, AK20, AWA21, AG20, BH22, BWB<sup>+</sup>21, Ber17, BG18, BBRM17, CDH17, Cha20b, Chl21, CRMA20, DLNV17, DA20, DMS17, Ell17b, EHAO18, HLK<sup>+</sup>20, HP19, HWC<sup>+</sup>21, HG22, HP22, HdSO21, JBK22b, KMLD20, KSSL18, LSSO18, LC21, MCF<sup>+</sup>22, MNB<sup>+</sup>22, OVCH19, Par20, PA19b, PN17, Per18, PH21, QGG19, Ram22, RSPC17, SC20, SFVJ19, SLO19, SM19, SAFF<sup>+</sup>17, SC18, SJS20, SYW<sup>+</sup>21, SB19, UdM22, VS20, WWC17, WDR18, YF18]. **functional-imperative** [QGG19]. **functions** [BGJ<sup>+</sup>21, CFLH<sup>+</sup>22, EPT18, KSG22, RK22, SPKT18, SHdM20, SMC21]. **Functorial** [DLNS21]. **functors** [BGPT19, MLMD19]. **Fusing** [TRWS22, SSK17]. **fusion** [YW21]. **Futhark** [EHAO18]. **future** [JLP<sup>+</sup>20, KSSL18, MWW22]. **futures** [CSM<sup>+</sup>17]. **FuzzFactory** [PLS<sup>+</sup>19]. **Fuzzi** [ZRH<sup>+</sup>19]. **Fuzzing** [LS23, SM20, LWY<sup>+</sup>22, MTDC19, MR22, PLS<sup>+</sup>19, SYW<sup>+</sup>21].

**gadget** [BPB<sup>+</sup>21]. **GADT** [BGWXP22]. **GADT-style** [BGWXP22]. **Galois** [PNPW22]. **game**

[CY19, Mel19, VMS<sup>+</sup>22, dVPJ20]. **games** [ACM<sup>+</sup>18, BKMMP19, FK18]. **gap** [LMÖ<sup>+</sup>22, WDR18]. **Garbage** [MCP23, BDCN20, DEH<sup>+</sup>18, MP22, UAM17]. **garden** [LyXW21]. **gas** [GKJ<sup>+</sup>18]. **Gauss** [BLSS21]. **GC** [CFD<sup>+</sup>17]. **General** [HP23, CR20, KJJ<sup>+</sup>18, LYU<sup>+</sup>22, MMS<sup>+</sup>22, SSK17]. **Generalizable** [JXXH21]. **Generalized** [XL21, XHdSO23, DS17, Mil20]. **generate** [LAGN21]. **Generating** [BJP23, BP21, LPP18, LCT<sup>+</sup>23, Mat22, WCH<sup>+</sup>19, YNIC19, COHY17]. **Generation** [BBP23, LVSZ23, CPKG17, CL21, LFY<sup>+</sup>22, RNDJ19, RGSNT17, SSSW21, SPKT18, WH19]. **Generative** [PWZS21]. **generator** [ASD<sup>+</sup>21, JKT21]. **generators** [BLF<sup>+</sup>19, KKSL22, LPP18, Mat22, NPZ<sup>+</sup>20, SV21]. **Generic** [DFS18, Ell17b, EZYS22, KPW18, EC22, KCL22, SKB<sup>+</sup>22, Yal17, dVPJ20]. **Geo** [BBB<sup>+</sup>17]. **Geo-distribution** [BBB<sup>+</sup>17]. **geometric** [GHMM23]. **Geometry** [CC23, GYK<sup>+</sup>20]. **Getafix** [BSPC19]. **Getting** [PJD<sup>+</sup>21, MAH18]. **Ghost** [LHC<sup>+</sup>23, CMP20]. **GhostCell** [YDJD21]. **Girard** [Kes22]. **GitHub** [LMM<sup>+</sup>17b, TRWS22]. **Giving** [HC21]. **global** [DFPG21]. **globally** [MA18]. **GLORE** [DS17]. **glossy** [ACM<sup>+</sup>18]. **GNN** [WBS<sup>+</sup>22]. **GNN-based** [WBS<sup>+</sup>22]. **Go** [KSW18, BCB21, CSD<sup>+</sup>21, EZYS22, CHJ<sup>+</sup>19, GHK<sup>+</sup>20]. **good** [LPP18, PT22]. **goSLP** [MA18]. **GPU** [AAM<sup>+</sup>21, CNRG19, EHAO18, KCB<sup>+</sup>23, SSR<sup>+</sup>21]. **GPU-based** [CNRG19]. **GPUs** [CPKG17]. **graded** [CEEW21, yKMUW22, OLE19]. **Gradients** [RPF<sup>+</sup>23]. **grading** [CRMA20, HP19]. **Gradual** [CL17, CLPS19, ITVW17, NLA19, TLT19, VTV18, WBW<sup>+</sup>20, YTO23, BBTSTH17, CCW18, CCEW18, CC20, ETG19, EGT22, FGS<sup>+</sup>18, FKT21, GFD19, ISI17, JTD21, LTTD22, LGFD21, MLBTT22, MP20, MSI19, MNTHV21, MT17, MT21, PCAGG21, RAT17, SCJG21]. **Graduality** [NA18, NJA20]. **Gradually** [MGT21]. **Grafts** [HLV21]. **Grained** [KD23, FSK<sup>+</sup>22, Kes22, MP21a]. **grammar** [YNIC19]. **grammars** [AM17, HBP19, JKT21]. **graph** [HLV21, JLO20, KKSL22, Mil20, WCMH19, WWGW20, ZYB<sup>+</sup>18]. **graph-based** [JLO20]. **graph-manipulating** [WCMH19]. **graphics** [DELT17, GYK<sup>+</sup>20]. **GraphIt** [ZYB<sup>+</sup>18]. **Graphs** [ASW23, CKN<sup>+</sup>23, BLSS21, DAY20, JBK22a, Mul22, PBS<sup>+</sup>17, RMH21, ZvAV22]. **greedy** [Ber17]. **Gries** [RLV20]. **Grisette** [LB23]. **Groovy** [Kin20]. **ground** [RWV19]. **Grounded** [BJP23]. **groupoids** [CKS22]. **guarantees** [BVG19, OMN<sup>+</sup>18]. **Guarded** [SFH<sup>+</sup>20, BGM21, MV19]. **guards** [GJS20, Rei17]. **Guide** [LVSZ23]. **Guided** [BDA20, JKXH23, LS23, GJJ<sup>+</sup>20, GRB20, JPR22, KHDR21, LHP19, LTMS18, LWY<sup>+</sup>22, MCF<sup>+</sup>22, MJ22, MPB<sup>+</sup>22, RMZ<sup>+</sup>20, RFH<sup>+</sup>22, WH19, WYT<sup>+</sup>22]. **Guiding** [JSXH20]. **GV** [JBK22b]. **Halide** [CC22, NAJ<sup>+</sup>20]. **handcrafting** [JLO20]. **Handle** [BPPS18]. **handlers** [BPPS18, BPPS20, BSO18, BSO20, FKLP17, GLBP22, KKPS21, SBO20, XBH<sup>+</sup>20, XL21, XCIL22, ZM19, ZN21, dVP21]. **Handling** [Ahm18, CA18b, ZSM20, KRV19]. **happens** [MKV18]. **happens-before** [MKV18]. **harder** [HKGK20]. **hardware** [BGC18, CVS<sup>+</sup>17]. **harmonizing** [CCW18]. **Harper** [SJSM20]. **Haskell** [BBN<sup>+</sup>18, BSZL<sup>+</sup>18, CDD<sup>+</sup>19, HVH20, JGW<sup>+</sup>20, KFEJ19, KRB<sup>+</sup>21, LPR<sup>+</sup>20, WVdAE17, WCVE19, XPL<sup>+</sup>22]. **HDL** [FMG<sup>+</sup>20]. **Heap** [MCP23, GM21, GFFS17, KSP22, MP22, MMK<sup>+</sup>20, TLKC18, TGSM19, WGP<sup>+</sup>21, WBW<sup>+</sup>20]. **heap-manipulating** [MMK<sup>+</sup>20, WGP<sup>+</sup>21]. **Heaps** [GFFS17, EWR19]. **Hefty** [PvdR23]. **help** [RFH<sup>+</sup>22]. **Herbarium** [SAFF<sup>+</sup>17]. **heterogeneous** [PGFP17, SMM17]. **heuristics** [COHY17, JLO20]. **HFL**

[KTST23]. **Hidden** [WSG<sup>+</sup>20]. **High** [GLBP22, MCP23, CVS<sup>+</sup>17, HLK<sup>+</sup>20, HPRW21, LHJ<sup>+</sup>18, LBH<sup>+</sup>18, LBCRK22, SGDL20, SNB<sup>+</sup>19, SM19, WNC<sup>+</sup>19, XK21, ZYB<sup>+</sup>18]. **High-Level** [MCP23, GLBP22, CVS<sup>+</sup>17, HPRW21, LHJ<sup>+</sup>18, LBCRK22, SGDL20, SM19, WNC<sup>+</sup>19, XK21].

**high-performance** [HLK<sup>+</sup>20, LBH<sup>+</sup>18, SNB<sup>+</sup>19, ZYB<sup>+</sup>18].

**Higher** [ABG<sup>+</sup>21, BOR18, CH19, GMS<sup>+</sup>23, JB23, JJR23, KFEJ19, MHLG23, PPSW20, PT23a, PvdR23, ABG<sup>+</sup>17, AK20, BWB<sup>+</sup>21, BBN<sup>+</sup>18, CK18, CGM18, DK20, DK19, EPT18, EHAO18, GM21, GGN<sup>+</sup>21, HG22, HTLS22, Jab20, KJK<sup>+</sup>22, LYU<sup>+</sup>22, MP17, MJ20, NDA<sup>+</sup>19, NGTHV18, RGGH21, RK22, ŠKV<sup>+</sup>18, SPKT18, SMC21, SC18, SG21, UST18, VMA19, WCD17, ZdSOS19].

**Higher-Order** [GMS<sup>+</sup>23, JB23, JJR23, MHLG23, PT23a, PvdR23, ABG<sup>+</sup>21, BOR18, KFEJ19, PPSW20, ABG<sup>+</sup>17, AK20, BWB<sup>+</sup>21, BBN<sup>+</sup>18, CGM18, DK20, EPT18, EHAO18, GM21, GGN<sup>+</sup>21, HG22, HTLS22, Jab20, KJK<sup>+</sup>22, LYU<sup>+</sup>22, MP17, MJ20, NDA<sup>+</sup>19, NGTHV18, RGGH21, RK22, ŠKV<sup>+</sup>18, SPKT18, SMC21, SC18, SG21, UST18, WCD17].

**higher-rank** [DK19].

**higher-ranked** [ZdSOS19].

**Highly** [HFS22, FKE<sup>+</sup>20].

**highly-concurrent** [FKE<sup>+</sup>20].

**Hindley** [MSI19].

**History** [RLS20, SHK<sup>+</sup>20, CB17, Hic20, Kin20, MHR20, MWW22, ML20b, Sym20, VHSS20].

**hoc** [JME20].

**HOL** [KP18b].

**Holes** [YGG<sup>+</sup>23, OVCH19].

**hood** [CDH17].

**Horn** [BOR18, END<sup>+</sup>18, JJR23, KSG22].

**Horn-ICE** [END<sup>+</sup>18].

**hot** [BBTK<sup>+</sup>17].

**hs** [BSZL<sup>+</sup>18].

**hs-to-coq** [BSZL<sup>+</sup>18].

**hull** [MMS<sup>+</sup>22].

**Hybrid** [GY23, EZYS22].

**Hygienic** [CW20].

**hyperproperties** [GMOO21].

**hypersafety** [DFD22].

**I/O** [SJL19].

**ICE** [END<sup>+</sup>18].

**IDEal** [SAB17].

**idempotence** [SJL19].

**Identifying** [VN18, FZSN20].

**identity** [LP20].

**idioms** [LSM<sup>+</sup>22].

**Igloo** [SKE<sup>+</sup>20].

**illogical** [HFS22].

**imaging** [AAM<sup>+</sup>21].

**impacts** [BPB<sup>+</sup>21].

**Imperative** [RSPC17, BCH<sup>+</sup>22, HWC<sup>+</sup>21, MCF<sup>+</sup>22, NPZ<sup>+</sup>20, PRT<sup>+</sup>18, QGG19].

**imperativity** [UdM22].

**implementation** [BCD22, CNRG19, GV19, XCB<sup>+</sup>18].

**Implementations** [FSX<sup>+</sup>23, DEO<sup>+</sup>20, LSA18].

**Implementing** [DD22, GSB19].

**implications** [FDvdHP22].

**implicit** [FSK<sup>+</sup>22, KNNR17, Kov20, OBL<sup>+</sup>18, ST21].

**implicit** [KMV19].

**imprecision** [CDG22].

**Impredicative** [PT23b].

**impredicativity** [SHJV20].

**improvement** [HH18].

**Improving** [JKXH23, LWNN19, CBA17, GM21, NAJ<sup>+</sup>20].

**Impure** [CHH<sup>+</sup>23, yXZH<sup>+</sup>20].

**in-place** [Tit22].

**in-situ** [LSZ<sup>+</sup>20].

**incomplete** [BGG<sup>+</sup>20, MRdAP18].

**inconsistencies** [RH22].

**incorporated** [EJMmH17].

**Incorrectness** [O'H20, ZDS23, LRV<sup>+</sup>22, RBDO22, YJY22, ZdAG22].

**Incremental** [HPC18, YHW20, ZvAV22, HH20, KPSL18, LH22, PES20].

**Incrementalizing** [SBEV18, DRS21].

**independence** [ACMZ21].

**index** [PJD<sup>+</sup>21].

**Indexed** [AB23, DK19, GST<sup>+</sup>20].

**Indexing** [SWYZ22, SKD21].

**Induction** [PWK<sup>+</sup>22, HKGK20, San22].

**Inductive** [JKXH23, LC23, CH19, FSSW21, KKA19, LPP18, Lee21, MPB<sup>+</sup>22, VMA19, ZXSD21].

**inductive-inductive** [KKA19].

**industry** [CDD<sup>+</sup>19, TRWS22].

**Inference** [LRY23, LVSZ23, MRdAP18, AKL19, AYB<sup>+</sup>22, AD17, EDWL21, ESCL22, FISS20, HGJ20, HMP<sup>+</sup>22, HVM20, KNNJ18, KFM21, KSS20, LYRY20, LCTS<sup>+</sup>20, LZ18, MSI19, NWZ<sup>+</sup>21, Par20, PC22, PSW21, RRG<sup>+</sup>21, ŠKV<sup>+</sup>18, ŠKG18, SKB<sup>+</sup>22, Tej20, VTV18, WNC<sup>+</sup>19, XLD20, XEdSO20, ZdSOS19, ZDDJ21].

**inferred** [INN21].

**Inferring** [PKW17].

**infinitesimal** [Jac21].

**Information** [HSS23, AFF<sup>+</sup>18, DNFK22,

FISS20, HK22, Kav19, PSY<sup>+</sup>20, ZK22].  
**Inhabitation** [AGK23]. **inheritance**  
 [WSG<sup>+</sup>20]. **initialization**  
 [AMT17, BL22, KLL20, LLB<sup>+</sup>20, WSH<sup>+</sup>19].  
**Initialize** [WSH<sup>+</sup>19]. **inline**  
 [CGL22, WSG<sup>+</sup>20]. **Inlining** [DPM23].  
**input** [CPKG17, RGSNT17, WH19].  
**insensitive** [GBTB21]. **instances**  
 [BPPS20]. **instantiated** [CHJ<sup>+</sup>19].  
**instantiation** [LMP18]. **instruction**  
 [SBM20]. **Instrumentation** [WCBG17].  
**Integer** [LZR23, LSM<sup>+</sup>22]. **integer-pointer**  
 [LSM<sup>+</sup>22]. **integrated** [MT18, SKS<sup>+</sup>19].  
**integrating** [IS18, RV18]. **Intel**  
 [IDSW21, RLV20, RWNV20, RMV22].  
**Intel-x86** [RLV20, RWNV20, RMV22].  
**IntelliMerge** [SZZ<sup>+</sup>19]. **Intensional**  
 [JR21]. **Inter** [TCJ20]. **Inter-theory**  
 [TCJ20]. **Interact** [BJP23]. **Interaction**  
 [CC23, yXZH<sup>+</sup>20, ADV21, SZ21, YW21,  
 ZPZX21]. **Interactive**  
 [GDM20, ABF20, FBP<sup>+</sup>21, KJJ<sup>+</sup>18,  
 MDSM19, SSSC<sup>+</sup>22, ZGSN17]. **interfaces**  
 [ZM17]. **Interleaved**  
 [LZR23, KP22, LZR21]. **Interleaved-Dyck**  
 [LZR23]. **interlocked** [SBM20].  
**Intermediate** [KCB<sup>+</sup>23]. **intermittent**  
 [MCL17, SJL19, SLJ20]. **Internalizing**  
 [ACMZ21]. **Interpretable** [ZR21].  
**Interpretation** [Lem23, BGMW20,  
 BPPS18, CDG22, CS21, EHAO18, FSSW22,  
 FDvdHP22, GLR<sup>+</sup>20, KE19, Kes22,  
 LYU<sup>+</sup>22, LLSS22, MJ20, RMH21, ZYT<sup>+</sup>19].  
**interpretations** [BGG<sup>+</sup>20]. **interpreter**  
 [Tit22]. **interpreters** [AR18, CNRG19,  
 DLNV17, KPE18, PRT<sup>+</sup>18, WDR18,  
 WCR19, YZZ22, ZRH<sup>+</sup>20, vdRPR<sup>+</sup>22].  
**Intersection** [DdVMY19, DFD21,  
 XHdSO23, CL17, HdSO21, MSdSOK20,  
 MPV18, MT18, WMW18]. **Interval**  
 [WAPJ22, WWGW20]. **intervals** [SG21].  
**Intrinsically**  
 [PRT<sup>+</sup>18, RKV21, vdRPR<sup>+</sup>22].  
**Intrinsically-typed** [PRT<sup>+</sup>18, vdRPR<sup>+</sup>22].

**Introduction** [OBS<sup>+</sup>22]. **intuitionistic**  
 [Kes22]. **invariant**  
 [FISS20, KCBR18, LFY<sup>+</sup>22]. **invariants**  
 [END<sup>+</sup>18, FSSW21, PWK<sup>+</sup>22, WWC17].  
**invertible** [MW20a]. **IR**  
 [LWY<sup>+</sup>22, SSH<sup>+</sup>19, ZBY<sup>+</sup>21]. **IR-pass**  
 [LWY<sup>+</sup>22]. **Iris** [GST<sup>+</sup>20, dVPJ20].  
**irrelevance** [GCST19]. **Isabelle** [KP18b].  
**Isabelle/HOL** [KP18b]. **iso** [ZdSOZ20].  
**iso-recursive** [ZdSOZ20]. **Isolation**  
 [KNJ<sup>+</sup>22, BKV<sup>+</sup>21, KNNJ18, LRS<sup>+</sup>20,  
 LSC<sup>+</sup>22]. **isomorphism** [SdSCQ19].  
**iteration** [SHW<sup>+</sup>20]. **itself** [JGMP22]. **IVT**  
 [WHZ<sup>+</sup>19].

**Jacobians** [LYSM22]. **Java**  
 [BP19, CNRG19, DRS21, LH22, MHN19,  
 MKTD17, MV20]. **JavaDL** [DRS21].  
**JavaScript**  
 [AMT17, AZMT18, CVG<sup>+</sup>17, GTT21,  
 MLT17, MNT20, SMN<sup>+</sup>18, Ser21, WBE20].  
**JaVerT** [SMN<sup>+</sup>18]. **JIT**  
 [BBF<sup>+</sup>21, BBP23, PBC<sup>+</sup>21, XCB<sup>+</sup>18]. **job**  
 [WBS<sup>+</sup>22]. **joint** [LWY<sup>+</sup>22]. **Jones** [BP18].  
**Jones-optimal** [BP18]. **Julia**  
 [BCG<sup>+</sup>20, BCC<sup>+</sup>18, NBP<sup>+</sup>18, PBC<sup>+</sup>21].  
**Just** [BPP20]. **Just-in-time** [BPP20].  
**JVM** [CSD<sup>+</sup>21, LMM17a].

**Kahn** [BM20]. **Kami** [CVS<sup>+</sup>17]. **Katara**  
 [LPM<sup>+</sup>22]. **Kater** [KLV23]. **Keep** [FZL18].  
**kernels** [MH21]. **Kind** [XEdSO20]. **Kindly**  
 [RST20]. **Kinds** [DAJE20, CT19]. **Kirk**  
 [HFS22]. **Kleene** [SFH<sup>+</sup>20, ZdAG22]. **knew**  
 [RAT17]. **know** [BG18]. **Knowing**  
 [RvAP<sup>+</sup>20]. **knowledge** [RAT17]. **Known**  
 [SV23]. **Koord** [GHMM20]. **Kripke**  
 [KHLD22].

**Label** [FKT21, TV20, LZ18].  
**Label-dependent** [TV20]. **labels**  
 [BPPS20, HC21, RKV21]. **laboratories**  
 [OLC<sup>+</sup>18]. **laboratories-on-a-chip**  
 [OLC<sup>+</sup>18]. **LabVIEW** [Kod20]. **lambda**

[BMP20, CdV20, FKT21, MKTD17, AGK23, Mor19, YW19, YTO23]. **lambda-calculus** [BMP20, CdV20]. **Language** [LCT<sup>+</sup>23, PvAPV22, SKS<sup>+</sup>19, VLRH23, XTZ<sup>+</sup>23, AP20, AK20, BKKM21, BBN<sup>+</sup>18, BRS18, BBP20, BAP20, CPB<sup>+</sup>22, CC22, DSLH20, GDM20, GHMM20, HGJ20, HTLS22, JJKD18, KKC17, Kin20, KPH22, KM20, KPSL18, LSDZ22, MW20a, MCP21, NDA<sup>+</sup>19, Pue17, RRG<sup>+</sup>21, RGSNT17, SSS<sup>+</sup>23, SFVJ19, SNB<sup>+</sup>19, SScWS19, SC18, Udm22, VHSS20, VMA19, WCGC18, WWC17, YWDD17, ZPG<sup>+</sup>17]. **Language-Agnostic** [LCT<sup>+</sup>23, XTZ<sup>+</sup>23]. **Language-integrated** [SKS<sup>+</sup>19]. **Language-parametric** [PvAPV22, KPSL18]. **Languages** [KM23, RG23, WKN<sup>+</sup>23, ACF17, BKF20, BJC<sup>+</sup>22, COHY17, CKS22, CFD<sup>+</sup>17, DTM<sup>+</sup>18, Ell21, KPSL18, LCTS<sup>+</sup>20, MRG18, PRT<sup>+</sup>18, SPKT18, SDdSO22, XK21]. **large** [EHAO18, GDBK<sup>+</sup>21, HFS22, KMV19, LWV<sup>+</sup>20, LLZ<sup>+</sup>22]. **large-scale** [GDBK<sup>+</sup>21, KMV19, LWV<sup>+</sup>20, LLZ<sup>+</sup>22]. **larger** [RFH<sup>+</sup>22]. **late** [KMP19]. **Later** [SGT<sup>+</sup>22]. **Lattice** [HSS23, SBEV18]. **lattice-based** [SBEV18]. **lattices** [BKMM19]. **law** [MCP21]. **Layered** [VMS<sup>+</sup>22, YZZ22]. **layering** [HT18]. **Layout** [CLO<sup>+</sup>23, BFV18, PETK19]. **laziness** [FZL18, GV19]. **Lazy** [DKPS23, HT18, ZXSD21]. **Leak** [JB23]. **leaks** [BGM19, GCY<sup>+</sup>20, VDvG<sup>+</sup>21]. **leaky** [JRB<sup>+</sup>22]. **Learning** [BOW<sup>+</sup>23, CKN<sup>+</sup>23, FSSW21, JLO20, KM22, KM23, MDBL20, SSC<sup>+</sup>17, SADC23, WWGW20, WLJ<sup>+</sup>23, WCC17, BSPC19, BPP20, CR19, COHY17, CWF<sup>+</sup>19, END<sup>+</sup>18, KLMM22, LWNN19, PS18, SZD<sup>+</sup>17, SC18, WCH<sup>+</sup>19, ZBG<sup>+</sup>22]. **Learning-based** [MDBL20]. **least** [MPB<sup>+</sup>22]. **left** [OBS<sup>+</sup>22]. **lemma** [BG18, LFY<sup>+</sup>22, SSSC<sup>+</sup>22, TLKC18]. **lemmas** [MPB<sup>+</sup>22]. **lenient** [CKT18]. **lenses** [HPC18, MMF<sup>+</sup>18, MFP<sup>+</sup>18, MMF<sup>+</sup>19]. **LER** [DS17]. **LER-notation** [DS17]. **Less** [KKZ23, SY19, JME20]. **Leto** [BGC18]. **Level** [MCP23, BBKO22, CT19, CVS<sup>+</sup>17, GLBP22, GCS<sup>+</sup>18, HPRW21, KFEJ19, Kov22, LHJ<sup>+</sup>18, LBCRK22, MA18, PZR<sup>+</sup>17, SGDL20, SM19, WNC<sup>+</sup>19, XK21, ZRH<sup>+</sup>19]. **levels** [BKV<sup>+</sup>21]. **Leveraging** [AMPS19, RAT17]. **lexically** [BPPS20]. **Lexicographic** [ACN18]. **libraries** [DA18, GRS<sup>+</sup>21, LBH<sup>+</sup>18, LAGN21, MJ22]. **Library** [BOW<sup>+</sup>23, LB23, SL23, MRX<sup>+</sup>19, MNT20, WLH<sup>+</sup>17, ZDDJ21]. **lie** [GFFS17]. **life** [MW20b]. **Lifting** [FKRS23, LPM<sup>+</sup>22, SC20]. **lightweight** [ADN22, BSO20, SCK<sup>+</sup>20]. **like** [COHY17, SSK22]. **Limit** [XTZ<sup>+</sup>23]. **limited** [LL22]. **limiting** [CDG22]. **Limits** [EBP<sup>+</sup>23, KSP22]. **Linear** [LHC<sup>+</sup>23, LLZ<sup>+</sup>22, LZR23, VPD19, WL23, AKK<sup>+</sup>21, AG20, BNS20, BHP<sup>+</sup>19, BMP20, FK18, GTF<sup>+</sup>20, KLO<sup>+</sup>22, KCBR18, LMZ19, LFY<sup>+</sup>22, NDA<sup>+</sup>19, QKB21, SDB19, SFH<sup>+</sup>20, ZHL<sup>+</sup>20, BBN<sup>+</sup>18]. **Linearity** [CGM18, BBN<sup>+</sup>18]. **Linearizability** [DRV23, MK23, VSC23, EE18]. **Linearize** [RPF<sup>+</sup>23]. **Linearly** [SKB<sup>+</sup>22]. **link** [DA18, LJ20]. **Linked** [PNPW22]. **linking** [BDA20, SCK<sup>+</sup>20, SKE<sup>+</sup>20]. **linters** [HFS22]. **Liquid** [KWR<sup>+</sup>20, PSY<sup>+</sup>20, HVH20, VTV18, LPR<sup>+</sup>20]. **Liquidate** [HVH20]. **Lisp** [MS20]. **literal** [OA18]. **Live** [OVCH19, YGG<sup>+</sup>23, LCOC20]. **LiveDroid** [FZSN20]. **liveness** [BGM21, BMTZ21, PHL<sup>+</sup>18]. **living** [Mai17]. **LLVM** [LHJ<sup>+</sup>18, ZBY<sup>+</sup>21]. **Local** [CJ17, GGV<sup>+</sup>21, LLSS22, PBS<sup>+</sup>17, Udm22, dVPJ20]. **localization** [LZ17]. **localizations** [WCMH19]. **localizing** [SSC<sup>+</sup>17]. **Locally** [Pit23]. **locations** [MNT20]. **Lock** [BS17, Coh18, KRV19, MW20b, ZFS<sup>+</sup>19]. **lock-free** [Coh18, MW20b, ZFS<sup>+</sup>19]. **Lock-step** [BS17]. **Locks** [JB23].

**Logarithm** [FW22]. **logging** [CFL17].

**Logic**

[DPM23, KDR23, MCP23, MK23, PT23a, PMS<sup>+</sup>23, UTKG23, ZDS23, ABG<sup>+</sup>17, AG20, BGHT22, BHL20, BDYG<sup>+</sup>21, Cha20b, CR20, CTR<sup>+</sup>20, DMS22, FRS<sup>+</sup>21, GSS<sup>+</sup>22, GGN<sup>+</sup>21, GLSY20, HBK20, JBK22a, JLP<sup>+</sup>20, KJJ<sup>+</sup>18, KLMM22, LRV<sup>+</sup>22, LLSS22, MP22, MJP20, MWW22, NBDF19, NGR<sup>+</sup>22, O<sup>+</sup>H20, PHL<sup>+</sup>18, QKB21, RLV20, RBDO22, SKE<sup>+</sup>20, SC18, SYW<sup>+</sup>21, SRF<sup>+</sup>20, TLKC18, TGSM19, VPD19, YM21, YJY22, ZRH<sup>+</sup>19, ZdAG22, dVP21]. **Logical** [AB23, GST<sup>+</sup>20, GBTB21, KyKS22, LSSO18, NSGH22, SLO19, TSKJB18].

**logics**

[ABG<sup>+</sup>21, FNB<sup>+</sup>21, KM22, MHRV20]. **Logo** [SHK<sup>+</sup>20]. **longitudinal** [LWW<sup>+</sup>20]. **look** [SHJV20]. **loop** [DS17, GCS<sup>+</sup>18, PGIY20]. **loops** [KLO<sup>+</sup>22, MSBK22, SSK22]. **LooPy** [FBP<sup>+</sup>21]. **loving** [GM21]. **low** [BJC<sup>+</sup>22, HKGK20, LHJ<sup>+</sup>18, PZR<sup>+</sup>17, SGDL20]. **low-code** [BJC<sup>+</sup>22]. **low-level** [LHJ<sup>+</sup>18, PZR<sup>+</sup>17, SGDL20]. **Lower** [FCS<sup>+</sup>23, GJS20, HKGK20]. **LR** [YNIC19]. **LXM** [SV21].

**m** [Rei17]. **machine**

[BBTK<sup>+</sup>17, BCD22, MRG18, Rot21, SVR17]. **machine-code** [SVR17]. **machines** [GTB22, IEC22, WDR18]. **macro** [CW20]. **Macros** [BKF20, CBTB20]. **made** [GJK<sup>+</sup>21, KKT19, PLSS17, Par20]. **MadMax** [GKJ<sup>+</sup>18]. **Makam** [SC18]. **Making** [LNO<sup>+</sup>21, TLM<sup>+</sup>21, XHdSO23, ACF17, JME20]. **management** [PVV<sup>+</sup>17]. **managers** [CG21]. **Manifest** [BP17]. **manipulating** [MMK<sup>+</sup>20, WCMH19, WGP<sup>+</sup>21, ZSL<sup>+</sup>22]. **Manipulation** [ZGHH23, MKC18]. **manipulations** [QSL17]. **manual** [PVV<sup>+</sup>17]. **many** [HFS22, KPSL18]. **map** [LMM<sup>+</sup>17b]. **marriage** [RRG<sup>+</sup>21]. **masses** [BSO18, ML20a, Pue17]. **match**

[BBKO22, GJS20, JGMP22, JR21].

**matcher** [SJSM20]. **Matching**

[LKM23, YGG<sup>+</sup>23, BGWXP22, CR20, CTR<sup>+</sup>20, CA18a, Tej20, THL<sup>+</sup>20, ZWWT22].

**math** [LAGN21]. **math.h** [LSA18].

**Mathematical** [GMS<sup>+</sup>23, BGK<sup>+</sup>22].

**MATLAB** [ML20b]. **matter** [MTDC19].

**means** [AG20]. **Measurable** [EPT18].

**measure** [Jac21]. **measurement**

[XLD20, ZR21]. **mechanical** [ZdSOS19].

**Mechanized**

[BBP20, GBTB21, TB19, BL22]. **meets**

[DJKD20, KCL22]. **Memory**

[KLV23, MGB<sup>+</sup>23, SL23, ZCH23, ABM<sup>+</sup>21, BMTZ21, BCG<sup>+</sup>21, CFL17, Coh18, CAL18, CG21, DD22, DJKD20, DJR18, GGN<sup>+</sup>21, HWC<sup>+</sup>21, IDSW21, JJR20, JRB<sup>+</sup>22, KSP22, KSTM20, KRB<sup>+</sup>21, LGTS20, LNO<sup>+</sup>21, ML21, MMK<sup>+</sup>20, MJ21, MW20b, MKV22, PVV<sup>+</sup>17, RV18, RMV22, UAM17, WZSK22]. **Memory-Safe** [MGB<sup>+</sup>23, HWC<sup>+</sup>21].

**merge** [CBA17, SDL18, ZH18]. **Mergeable**

[KPSJ19]. **merging** [PNWT22, SZZ<sup>+</sup>19].

**Merlin** [BRS18]. **Message**

[DFLL23, Wad17]. **Message-Passing**

[DFLL23]. **messages** [WCC17]. **messaging**

[MAN17]. **Meta** [KM23, KHL22, WCR19].

**meta-programming** [KHL22, WCR19].

**Meta-theorem** [KM23].

**metaprogramming** [EUR<sup>+</sup>17, JGMP22].

**Metatheory** [KLV23, FS22]. **method**

[BCG<sup>+</sup>20, JBK22a, KH21, WHZ<sup>+</sup>19].

**Methodology** [FSX<sup>+</sup>23]. **methods** [LF18].

**microarchitectural** [RH22]. **Microservice**

[KZA<sup>+</sup>23]. **Migrating** [CCEW18, GJK<sup>+</sup>21].

**migration** [GTT21, PCAGG21]. **Milner**

[MSI19]. **Minimality** [XTZ<sup>+</sup>23].

**Minimization** [JW23]. **mining** [KNNR17].

**misconfigurations** [ZPZX21]. **mismatches**

[HFS22]. **missed** [CKP22]. **mitigating**

[BPB<sup>+</sup>21]. **mix** [PT20]. **Mixed**

[LMZ19, Ch121]. **ML** [MHR20, WR18].

**MLstruct** [PC22]. **mobile**

[FZSN20, RFH<sup>+</sup>22]. **modal**

[BGM19, GSB19, KJJ<sup>+</sup>18, OLE19, RRG<sup>+</sup>21, VRC22, ZN21]. **Modalities** [Kav19, AB20]. **modality** [SGT<sup>+</sup>22]. **mode** [KJK<sup>+</sup>22, RSY21]. **Model** [KLV23, MKV22, MPB<sup>+</sup>22, SVR17, UAM17, AAJN18, AAJ<sup>+</sup>19, BL22, BAY20, CL21, DNFK22, EPT18, HKVR21, HKSS21, JJR20, JDKD20, KLSV18, KRV19, KKT19, MLT17, ML21, MJ21, MDSM19, RV18, SCMS20, TU22, WZSK22, YAC21]. **Model-assisted** [SVR17]. **model-checking** [TU22]. **model-finding** [DNFK22]. **Model-guided** [MPB<sup>+</sup>22]. **Modeling** [MH21, BKPS18, JWJ<sup>+</sup>21, LGTS20, SMC19, SGL<sup>+</sup>21]. **Models** [BJP23, DFLL23, KMO23, AJRG21, BGK<sup>+</sup>22, BGC18, BCG<sup>+</sup>21, HHY<sup>+</sup>21, KyKS22, LNO<sup>+</sup>21, LMÖ<sup>+</sup>22, NPWW22, PFD<sup>+</sup>18, RWV19, RRG<sup>+</sup>21, SSR<sup>+</sup>21, UAM17, VLG21, YAY20]. **modern** [WCD17]. **modes** [BP19, LN22]. **Modification** [SU23]. **Modular** [HFCG19, KO23, NPWW22, NGR<sup>+</sup>22, PETK19, PvdR23, TGSM19, UTGK23, WBM<sup>+</sup>21, ZBY<sup>+</sup>21, AMPS19, AMS20, CVS<sup>+</sup>17, GGN<sup>+</sup>21, LW22b, ŚKG18, SCK<sup>+</sup>20, WCR19]. **modularity** [AGR<sup>+</sup>20]. **module** [Cra19]. **modules** [EHAO18, HH20]. **Modulo** [LL23, ASD<sup>+</sup>21, KSG22, MR22]. **Modus** [MSdSOK20]. **Moebius** [JGMP22]. **moment** [MSBK22]. **monad** [JDT22]. **Monadic** [BH22, Cho22, RBG<sup>+</sup>18, SLDN17, FKL17, TSKJB18, YZZ22]. **Monads** [DKPS23, AHL20, HT18, Hir19, yKMUW22, KHL22, MAA<sup>+</sup>19, SZ21]. **monitoring** [EE18]. **monitors** [CMP20, FSK<sup>+</sup>22, GFD19]. **MonkeyDB** [BKV<sup>+</sup>21]. **monomorphisation** [EZYS22]. **monotone** [FSSW22]. **monotonic** [AFH<sup>+</sup>18]. **MOOC** [CDH17]. **morphisms** [NBDF19]. **MoSeL** [KJJ<sup>+</sup>18]. **Mossad** [DMB20]. **mostly** [BBTSTH17]. **motion** [MYZ20]. **movies** [ACF17]. **moving** [SCJG21]. **MSL** [JJR23]. **MSWasm** [MGB<sup>+</sup>23]. **Mtac2** [KZK<sup>+</sup>18]. **Much** [HKSS21, MTDC19]. **Multi** [ADV22, CC23, RRG<sup>+</sup>21, SSS<sup>+</sup>23, MKV22, SEP<sup>+</sup>20]. **multi-actor** [SEP<sup>+</sup>20]. **multi-execution** [MKV22]. **Multi-language** [SSS<sup>+</sup>23]. **Multi-modal** [RRG<sup>+</sup>21]. **Multi-token** [CC23]. **multicopy** [PKSW21, PFD<sup>+</sup>18]. **multicopy-atomic** [PFD<sup>+</sup>18]. **multicore** [CFKP22, MJP20]. **multiparadigm** [VHSS20]. **Multiparty** [GY23, JBK22b, MYZ20, CPY20, GPP<sup>+</sup>21, SY19, VHEZ21, ZFH<sup>+</sup>20]. **multiple** [LN22, PHSR19, USM22]. **multiplexing** [DA18]. **multiplicative** [AG20]. **multithreaded** [BMTZ21]. **must** [GM21]. **must-alias** [GM21]. **mutation** [BDG<sup>+</sup>22, LWY<sup>+</sup>22, PWZS21]. **mutations** [WZS20]. **name** [MM19, PS18, RvAP<sup>+</sup>20, SSSW21]. **name-based** [PS18]. **Nameless** [Pit23, RKV21]. **names** [XCIL22]. **Narcissus** [DSPC<sup>+</sup>19]. **Native** [BBP23, EC22]. **Natural** [QSL17, BGPT19, CPB<sup>+</sup>22, GDM20, LMP18, YWDD17]. **Near** [WLJ<sup>+</sup>23, KNJ<sup>+</sup>22, WAA22]. **Near-Optimal** [WLJ<sup>+</sup>23]. **near-zero** [WAA22]. **near-zero-cost** [KNJ<sup>+</sup>22]. **nearly** [SFH<sup>+</sup>20]. **Necessity** [MEND22]. **need** [BBBK17, Bie22, BCD22, HH19]. **needa** [BG18]. **negation** [BMP20]. **negative** [BGHT22, BPB<sup>+</sup>21, CS21, DNFK22]. **nested** [SSK22, WYFA20, ZA22]. **nested-parallel** [WYFA20]. **NetKAT** [VS20]. **nets** [Kes22]. **Network** [WLJ<sup>+</sup>23, BGMW20, GSW21, MMS<sup>+</sup>22, WWGW20]. **networked** [SEP<sup>+</sup>20]. **networks** [LWNN19, USM22, UCWZ20, WAPJ22]. **Neural** [DAY20, JPR22, BLF<sup>+</sup>19, LWNN19, MCF<sup>+</sup>22, MMS<sup>+</sup>22, USM22, UCWZ20, WWGW20, WAPJ22]. **neural-backed** [BLF<sup>+</sup>19]. **neural-guided** [MCF<sup>+</sup>22]. **Neurosymbolic** [BJC<sup>+</sup>22, SEG<sup>+</sup>22]. **never**

[KMP19]. **Newly** [GM21]. **Newly-single** [GM21]. **next** [MHRV20, PA19b, CNH20]. **night** [BPPS20]. **NK** [VS20]. **No** [DMS17, KHL22]. **No-brainer** [DMS17]. **nominal** [MT21, Rot21, WZSK22]. **nominally** [MT17]. **Non** [KCBR18, LC23, CFL17, CAL18, FF20, KPH22, LAF+20, LMZ19, PVV+17, RMV22, SYW+21, UST18]. **non-blocking** [FF20, PVV+17]. **non-crashing** [SYW+21]. **non-deterministic** [UST18]. **Non-linear** [KCBR18, LMZ19]. **Non-recursive** [LC23]. **non-strict** [KPH22]. **non-temporal** [RMV22]. **non-termination** [LAF+20]. **non-volatile** [CFL17, CAL18]. **Nondeterminism** [AB23]. **Nondeterministic** [CHH+23, WZS19]. **Noninterference** [HP23, AB19, GBTB21, ZR21]. **Normalization** [AVW17, VRC22, BP18, ETG19]. **notation** [DS17, OA18]. **novice** [SSC+17]. **nullable** [MvdP21]. **number** [LYSM22, SV21]. **Numbers** [SV23]. **numerical** [CN22, SPV18].

**O** [SJJ19]. **Object** [CAL18, ZGHH23, BS21, BL22, FG18, JO22, KLL20, KEW+20, LLB+20, LX19, RKS18, RKHL17, SGD17, VMS+22, WXWS20]. **object-based** [VMS+22]. **Object-Oriented** [ZGHH23, CAL18, FG18, JO22, KEW+20]. **object-sensitive** [LX19]. **object-sensitivity** [RKS18]. **Objective** [CNH20]. **Objective-C** [CNH20]. **Objects** [ZGHH23, BGWXP22, EJMmH17, GAGG+18, LyXK+22, LF18, WHZ+19]. **Oblivious** [YD22, DSLH20]. **observability** [AC20]. **Observational** [PT22, PT23b, ML21]. **Obsidian** [CAMS20]. **OCaml** [BRS18, CDH17, LJ20, MJP20, SDW+20]. **occurrence** [CLNL22]. **Once** [RPF+23, WSH+19]. **One** [BCB21, KPSL18, LN22]. **Online** [GAGG+18, DLC22, TBB+19]. **Only** [RPF+23, BBTSTH17]. **onto** [SDW+20]. **op** [NGR+22, WMM20]. **op-based** [NGR+22, WMM20]. **Operational** [GMS+23, SL23, HH18, Hir19, KKSL22, Mai17, PFD+18]. **Operations** [XHdSO23, EWR19, MHN19]. **operator** [WZS20]. **opportunities** [VN18]. **optics** [BG18]. **Optimal** [AAJN18, AAJ+19, CCP18b, GTU23, KSP22, MPV21, SFRM20, WLJ+23, BP18, KMGV22]. **optimisation** [LJ20]. **Optimised** [LRY23]. **Optimization** [BSRC19, CWG+22, FMTSL20, HHT20, LBCRK22, MV20, MOP21, SZD+21, VCD+21]. **optimizations** [BPB+21, CKP22, FSY+18, GSS+22, HLK+20, LHJ+18, LP20, PLA21, PP20, SHdM20, SSH+19]. **optimize** [RAT17]. **optimized** [MA18]. **optimizer** [HRH+21]. **optimizing** [BCG+20, Mai17, OUM18]. **Oracle** [JKXH23, ZGS+22]. **Oracle-free** [ZGS+22]. **Oracle-Guided** [JKXH23]. **oracles** [LVH+22]. **Orca** [CFD+17]. **Order** [DFLL23, GMS+23, FAM23, JB23, JJR23, MHLG23, PT23a, PvdR23, ABG+17, ABG+21, AK20, BWB+21, BBN+18, BOR18, CCP+18a, CPT19, CGM18, DK20, EPT18, EHAO18, FS22, GM21, GGN+21, GCY+20, Ham17, HKVR21, HG22, HTLS22, Jab20, KFEJ19, KMGV22, KJK+22, LYU+22, MP17, MJ20, NDA+19, NGTHV18, PHL+18, PPSW20, RGGH21, RK22, ŠKV+18, SPKT18, SMC21, SC18, SG21, UST18, WCD17]. **order-aware** [HKVR21]. **Order-Theoretic** [FAM23]. **Oriented** [ZGHH23, CAL18, FG18, FRS+21, GRS+21, JO22, KEW+20]. **Origins** [BAP20, CNH20]. **ornamentation** [WR18]. **other** [MM19]. **ours** [JLP+20]. **out-of-gas** [GKJ+18]. **out-of-order** [GCY+20]. **out-of-thin-air** [OD18]. **Outcome** [ZDS23]. **output** [DNFK22, GRS+21, KNSA20]. **output-oriented** [GRS+21]. **overflow**

[TML<sup>+</sup>22]. **overhead** [MV20]. **Overloading** [RHdSOZ23]. **Overwatch** [ZBG<sup>+</sup>22]. **Owicki** [RLV20]. **ownership** [CAMS20]. **Oz** [VHSS20].

**P** [GS17, VS20]. **P/Taint** [GS17]. **p4** [DAB<sup>+</sup>21]. **packet** [LW22b]. **page** [PETK19]. **pairs** [NA18]. **paradigm** [BGK<sup>+</sup>22]. **Paradoxes** [Jac21]. **Parallel** [ASW23, DHP18, AJRG21, AWA21, AG20, CSM<sup>+</sup>17, Ell17b, FJM19, HKVR21, KVT20, MP21a, MRG18, Mul22, SLDN17, UCWZ20, WYFA20]. **parallelism** [KRV<sup>+</sup>21, MA18, MAH18, MWA19, PJD<sup>+</sup>21, RLS20, SDW<sup>+</sup>20]. **parallelism-preserving** [PJD<sup>+</sup>21]. **Parallelization** [DTM<sup>+</sup>18, Mor19]. **Parameterized** [AAR20, JWJ<sup>+</sup>21]. **Parametric** [HH18, NVD17, CHJ<sup>+</sup>19, CVS<sup>+</sup>17, KPSL18, PvAPV22]. **Parametricity** [DPP18, AJSW17, AB19, LTTD22, NJA20, TTS18, TLT19]. **parse** [SEG<sup>+</sup>22]. **parser** [JKT21, WWP20]. **Parsing** [DA20, GP22, HBP19]. **Partial** [DFLL23, JME20, AC20, BP18, CCP<sup>+</sup>18a, CPT19, DLNS21, KMGV22, LBH<sup>+</sup>18, LF18, LX19, CDG22]. **Partially** [YvGK18, MW20a]. **partially-invertible** [MW20a]. **Partially-static** [YvGK18]. **partition** [MN18]. **partitioning** [RS20]. **partitions** [LSC<sup>+</sup>22]. **pass** [LWY<sup>+</sup>22, MMK<sup>+</sup>20]. **Passing** [DFLL23, ABD21, EZYS22, SBO20, XL21]. **past** [KSSL18]. **patch** [XK21]. **Path** [DRV23, MPAG20, MV19, RL19, ZYT<sup>+</sup>19]. **path-dependent** [RL19]. **pathologies** [PBC<sup>+</sup>21]. **pathology** [FGS<sup>+</sup>18]. **paths** [LyXW21]. **Pattern** [YGG<sup>+</sup>23, BGWXP22, CA18a, DRS21, GJS20, JGMP22, JR21, Tej20]. **pattern-match** [GJS20, JR21]. **patterns** [SGD17, ZBG<sup>+</sup>22]. **Paxos** [PLSS17]. **payment** [WZS19]. **PCF** [MP21b]. **pearl** [ACF17, BH22, Ber17, BG18, BBRM17, Cha20b, Chl21, DLNV17, DA20, DMS17, HLK<sup>+</sup>20, HdSO21, KSSL18, Par20, PA19b, Per18, PH21, Ram22, SAFF<sup>+</sup>17, SC18, SJSM20, SB19, UdM22, WDR18, YF18]. **penultimate** [WZD<sup>+</sup>19]. **per-path** [ZYT<sup>+</sup>19]. **perfect** [SMTH20]. **Perfectly** [UCWZ20]. **performance** [BCC<sup>+</sup>18, CCW18, GF18, HLK<sup>+</sup>20, LBH<sup>+</sup>18, PBC<sup>+</sup>21, Ser21, SNB<sup>+</sup>19, WSG<sup>+</sup>20, ZYB<sup>+</sup>18]. **Periodic** [WL23]. **Permchecker** [CG21]. **permissions** [YDJD21]. **PERs** [PT23a]. **PerSeVerE** [KKRV21]. **Persistence** [Pue17, RV18]. **Persistency** [RWNV20, KL21, KKR21, RV18, RWV19, RMV22]. **Persistent** [KRB<sup>+</sup>21, RLV20, AAB<sup>+</sup>21]. **perspective** [CLPS19]. **perturbation** [ASMS20]. **Petr4** [DAB<sup>+</sup>21]. **phases** [UAM17]. **physicist** [KH21]. **pi** [DdVMY19]. **pi-calculus** [DdVMY19]. **pipeline** [LW22b, RK22]. **pipelines** [AAM<sup>+</sup>21, HKVR21, MV20, Spi17]. **Pirouette** [HG22]. **Pixel** [SADC23]. **place** [Tit22]. **placement** [PGFP17]. **plagiarism** [DMB20]. **PlanAlyzer** [TBB<sup>+</sup>19]. **plane** [ECK<sup>+</sup>22]. **planes** [BGMW20, DAB<sup>+</sup>21, GSW21]. **platform** [CVS<sup>+</sup>17]. **platforms** [PP22]. **Plausible** [LTTD22]. **play** [BS17]. **Plotkin** [BM20]. **point** [Ada19, LAGN21, PJD<sup>+</sup>21, ZZX<sup>+</sup>20, ZGS<sup>+</sup>22]. **Pointer** [MW20b, BDCN20, JLO20, LSM<sup>+</sup>22, LTMS18, LH22, LX19, MP21a, SHdM20, TLM<sup>+</sup>21]. **pointer-based** [SHdM20]. **Pointers** [ZCH23]. **pointful** [PJD<sup>+</sup>21]. **points** [BS21, GS17, JJO18, JJCO17, RKS18]. **points-to** [BS21, GS17, JJO18, JJCO17, RKS18]. **Policy** [HP23, PWSD20]. **polling** [BC18]. **Polyadic** [MPV18]. **polyhedral** [CL21, YAC21]. **Polymorphic** [MvdP20, PHSR19, BBN<sup>+</sup>18, ISI17, STI20, WHZ<sup>+</sup>19, ZdSOS19]. **Polymorphism** [FAM23, BSO20, DK19, HH18, OUM18, ST21, ZM17]. **Polynomial**

[GHMM23, HP23, LN22]. **Pomsets** [JJR20]. **Ponens** [MSdSOK20]. **pools** [BMTZ22]. **portable** [SSH<sup>+</sup>19]. **positive** [DFD21, DNFK22]. **POSIX** [GB20]. **possible** [BCRA18]. **Possibly** [FCS<sup>+</sup>23]. **post** [LJ20, ZK22]. **post-link** [LJ20]. **Power** [DGGM23, FKLP17, KPP21, MKV18, TLM<sup>+</sup>21]. **powered** [CWG<sup>+</sup>22]. **PPI** [CNH20]. **PPI/Stepstone** [CNH20]. **Practical** [AMT17, EC22, BBN<sup>+</sup>18, CT19, Ham17, RSY21, SPV18, WWC17, XCB<sup>+</sup>18, ZYT<sup>+</sup>19]. **pre** [ABH<sup>+</sup>21, RRG<sup>+</sup>21, VLG21]. **pre-expectation** [ABH<sup>+</sup>21]. **pre-trained** [RRG<sup>+</sup>21, VLG21]. **Precise** [EWR19, GPP<sup>+</sup>21, JJO18, LGTS20, XLD20, CVG<sup>+</sup>17, MMS<sup>+</sup>22, SCJG21, SGL<sup>+</sup>21, SAB17, SCZW20, TLM<sup>+</sup>21, WCH<sup>+</sup>19]. **Precision** [LTMS18, LX19, LWUD21]. **Precision-guided** [LTMS18]. **Precision-preserving** [LX19]. **preconditions** [JJR20]. **predicate** [SB19, YHW20]. **prediction** [KP18a, KFM21, MPV21, Mul22, Pav20]. **predictive** [GRXB19, MKV18]. **preemptive** [LRS<sup>+</sup>20]. **Prefix** [LS23]. **Prefix-Guided** [LS23]. **Presburger** [PUW<sup>+</sup>21]. **presence** [BCG<sup>+</sup>20, TSKJB18]. **presentations** [yKMUW22]. **Preserving** [DPM23, LVSZ23, BBG<sup>+</sup>20, BCRA18, FZSN20, LX19, MPV21, PJD<sup>+</sup>21, SFH22]. **pretty** [Ber17]. **preventing** [ZPG<sup>+</sup>17]. **PRIMA** [MMS<sup>+</sup>22]. **Primal** [UTGK23, PWK<sup>+</sup>22]. **Primal-Dual** [UTGK23, PWK<sup>+</sup>22]. **principal** [Par20, PC22]. **Principality** [DR19]. **principled** [BL22, WR18]. **principles** [DNFK22]. **printer** [Ber17]. **printf** [Ada19]. **priorities** [CFLH<sup>+</sup>22, MAH18]. **priority** [LSC<sup>+</sup>22]. **privacy** [ADN22, AH18, BCK<sup>+</sup>21, NDA<sup>+</sup>19, SKS<sup>+</sup>19, WCHRP17, ZRH<sup>+</sup>19, ZRH<sup>+</sup>20]. **privacy-aware** [SKS<sup>+</sup>19]. **private** [SA19, ZHL<sup>+</sup>20]. **Probabilistic** [AB23, BZSL19, CMcS23, DWH23, FCS<sup>+</sup>23, LRY23, LHSM23, LVSZ23, SSSW21, YTO23, ACN18, ABG<sup>+</sup>21, ABH<sup>+</sup>21, ADDN17, ABM<sup>+</sup>21, AYB<sup>+</sup>22, AMS20, BEG<sup>+</sup>18, BHL20, BKKM21, DK20, EPT18, GSW21, HKGK20, HVM20, HFCG19, Jac21, LYRY20, LCTS<sup>+</sup>20, MSBK22, NcS17, NPWW22, OMN<sup>+</sup>18, VS20, WCGC18, WFC<sup>+</sup>20, ZA22]. **probabilistically** [DSLH20]. **probabilities** [Jac21]. **probability** [JSXH20, SFRM20]. **problem** [KNNR17]. **Problems** [BGC23, DZ23, BBRM17, LY18]. **ProbNV** [GSW21]. **processes** [KMP19, XCB<sup>+</sup>18]. **processing** [DLC22, KNSA20, KM20, SLDN17, SFVJ19]. **processor** [ZR21]. **processors** [SBM20]. **produce** [LN22]. **products** [WMM20]. **Profile** [HMP<sup>+</sup>22]. **profiler** [BVG19]. **profiles** [PJP<sup>+</sup>18]. **profiling** [MOP21, ZHL<sup>+</sup>20]. **profunctor** [BG18]. **Program** [CRMA20, GJJ<sup>+</sup>20, KTST23, LW22a, LCT<sup>+</sup>23, LCOC20, MRX<sup>+</sup>19, SV23, WDS18, WL23, XTZ<sup>+</sup>23, YSHZ21, ABG<sup>+</sup>21, ADDN17, ACM<sup>+</sup>18, BLF<sup>+</sup>19, BLSS21, CDG22, COHY17, DG22a, FBP<sup>+</sup>21, GSS<sup>+</sup>22, GBR<sup>+</sup>20, GRS<sup>+</sup>21, HKGK20, HC21, FW22, INN21, KGdV<sup>+</sup>22, Lee21, LA21, LBCRK22, MHRV20, MCF<sup>+</sup>22, MWW22, MV20, NAJ<sup>+</sup>20, OLE19, RLV20, RRG<sup>+</sup>21, SWYZ22, SDL18, SFH22, SBEV18, WWD18, WWGW20, WCR19, ZYT<sup>+</sup>19]. **program-counter** [HC21]. **programmable** [BGC18, LCTS<sup>+</sup>20, OA18]. **Programmatic** [ZGHH23]. **Programmers** [BJP23, AMP<sup>+</sup>20, LC21]. **Programming** [AJRG21, AC20, CGL<sup>+</sup>23, CMcS23, DKPS23, DWZ20, LZR23, LB23, PGIY20, SWT18, ZGHH23, AP20, AWA21, AYB<sup>+</sup>22, BGM19, BGM21, BGK<sup>+</sup>22, BBKO22, BAP20, BBRM17, CT19, CDH17, CHJ<sup>+</sup>19, CS21, CFKP22, CKS22, DPQS18, DMSM18, EPT18, ECK<sup>+</sup>22, EHAO18, EGT22, EC22, FG18, FRS<sup>+</sup>21, GYK<sup>+</sup>20, GHMM20, GTF<sup>+</sup>20, HP19, HHY<sup>+</sup>21, Jac21, JSXH20,

JKL<sup>+</sup>22, JJKD18, KHL22, Kin20, KFEJ19, KH18, KCL22, KEW<sup>+</sup>20, LSSO18, LBH<sup>+</sup>18, LRGC19, LW22b, ML20a, MRG18, MCP21, MDSM19, NWP<sup>+</sup>18, OVCH19, OLC<sup>+</sup>18, PJD<sup>+</sup>21, PN17, Per18, PZR<sup>+</sup>17, SSSW21, SMM17, SEP<sup>+</sup>20, ŠKG18, SNJ<sup>+</sup>19, SFVJ19, SHSO22, SZD<sup>+</sup>21, SMC21, SLO19, SM19, SC18, VLG21, VMA19, VHEZ21, WZD<sup>+</sup>19, WCR19, Yal17]. **Programs** [CHH<sup>+</sup>23, DTSLT23, FKP23, FCS<sup>+</sup>23, GHMM23, LHC<sup>+</sup>23, LC23, LRY23, LHSM23, ZBS<sup>+</sup>23, ACN18, ABG<sup>+</sup>17, AZMT18, AG20, AMS20, BvGKJ17, BNS20, BKPS18, BWB<sup>+</sup>21, BEG<sup>+</sup>18, BHY<sup>+</sup>20, BKKM21, BMTZ21, CR19, CSD<sup>+</sup>21, Cha20b, CRMA20, CSM<sup>+</sup>17, DK20, FJM19, GDBK<sup>+</sup>21, GLPS<sup>+</sup>20, HHT20, HH20, HWC<sup>+</sup>21, HVM20, HFCG19, Jab20, JO22, KNSA20, KMLD20, LRV<sup>+</sup>22, LLSS22, LYRY20, LZ17, LY18, LZY<sup>+</sup>20, MYZ20, MHN19, MMK<sup>+</sup>20, MRdAP18, MNB<sup>+</sup>22, MNT20, MJ20, NBDF19, NcS17, NGTHV18, QGG19, RLV20, RMZ<sup>+</sup>20, RSPC17, RFH<sup>+</sup>22, SC20, SA19, SFH<sup>+</sup>20, SLHR22, SRF<sup>+</sup>20, TB19, UST18, WCMH19, WXWS20, WFC<sup>+</sup>20, WZSK22, WGP<sup>+</sup>21, WYFA20, yXZH<sup>+</sup>20, YMDW21, YJY22, YMC22, ZA22, ZSL<sup>+</sup>22, ZGS<sup>+</sup>22]. **Progress** [LF18, SSR<sup>+</sup>21]. **Project** [PVV<sup>+</sup>17]. **Projection** [GY23, LZY<sup>+</sup>20, NA18]. **Projection-based** [LZY<sup>+</sup>20]. **Prolog** [SC18]. **Promises** [GJK<sup>+</sup>21, AZMT18, MLT17]. **Proof** [KMO23, LCT<sup>+</sup>23, MK23, USM22, BL22, CTR<sup>+</sup>20, FBG20, FRS<sup>+</sup>21, GCST19, Kes22, MMKK18, RKHL17, TU22]. **proof-irrelevance** [GCST19]. **proof-nets** [Kes22]. **proof-oriented** [FRS<sup>+</sup>21]. **Proof-Relevant** [KMO23]. **Proofs** [GSF<sup>+</sup>23, GTU23, KMO23, AH18, AAC<sup>+</sup>18, AG20, BHY<sup>+</sup>20, BP21, FV20, KPE18, KJJ<sup>+</sup>18, KPP21, LAF<sup>+</sup>20, LMP18, SSSC<sup>+</sup>22]. **propagation** [Lee21, SFH22]. **properties** [AKK<sup>+</sup>21, ASMS20, BZSL19, BMTZ21, BGG<sup>+</sup>20, OCDR17, TGSM19]. **Property** [FSSW22, JPR22, LHP19]. **Property-directed** [FSSW22]. **prophecy** [JLP<sup>+</sup>20]. **Propositional** [EGT22]. **Propositions** [RC21, FDvdHP22]. **propositions-as-sessions** [FDvdHP22]. **Propositions-as-types** [RC21]. **protection** [Bie22]. **Proto** [FKRS23]. **Proto-Quipper** [FKRS23]. **Protocol** [GY23]. **Protocols** [GSF<sup>+</sup>23, BSRC19, CPY20, CFL17, FSD21, FSK<sup>+</sup>22, Mai17, PLSS17, SWT18, ZFH<sup>+</sup>20]. **Prototyping** [AHM<sup>+</sup>17, SC18]. **provable** [GGV<sup>+</sup>21]. **Provably** [AWA21, KJK<sup>+</sup>22, PBS<sup>+</sup>17, QSL17]. **provably-correct** [QSL17]. **prove** [Ham17]. **Provenance** [RMZ<sup>+</sup>20, BDCN20]. **Provenance-guided** [RMZ<sup>+</sup>20]. **Proving** [BEG<sup>+</sup>18, DFD22, FKE<sup>+</sup>20, WFC<sup>+</sup>20, JBK22a, LSA18, SWT18, SM19, TSKJB18]. **pruning** [MKLR20]. **pseudorandom** [SV21]. **PSO** [BCG<sup>+</sup>21]. **PSPACE** [AAR20]. **PSPACE-complete** [AAR20]. **pure** [SHdM20]. **purely** [UdM22]. **Purity** [JDT22, CK20, YMC22]. **push** [BC18, KMLD20]. **pushdown** [JKT21]. **Pushing** [XTZ<sup>+</sup>23]. **qualified** [SKB<sup>+</sup>22]. **qualitative** [LMÖ<sup>+</sup>22]. **quality** [GS22]. **quantifier** [LMP18]. **quantifiers** [NVD17]. **Quantitative** [AGK23, GD23, OLE19, ZK22, LMÖ<sup>+</sup>22]. **Quantum** [HHT20, HK22, JKL<sup>+</sup>22, KO23, LLSS22, PP22, VLRH23, YJY22, YC22, YMC22, ZBS<sup>+</sup>23, BHY<sup>+</sup>20, CdV20, HRH<sup>+</sup>21, KH21, LY18, LZY<sup>+</sup>20, LVH<sup>+</sup>22, MSR20]. **quasiquotes** [PVSK18]. **Qubit** [SdSCQ19]. **Queries** [ZMSD23, CPB<sup>+</sup>22, SKS<sup>+</sup>19, WCB18, ZA22]. **Query** [WLJ<sup>+</sup>23, AHM<sup>+</sup>17, KM20, RS20, YWDD17]. **Question** [JKXH23]. **queue** [MJ21]. **quick** [SHJV20]. **QuickChecking** [MJK<sup>+</sup>17]. **QuickSilver** [JWJ<sup>+</sup>21]. **Quipper** [FKRS23]. **Qunity** [VLRH23].

**quotient** [KKA19, MMF<sup>+</sup>18].

**R** [Cha20a, GV19, GJK<sup>+</sup>21, GDBK<sup>+</sup>21, TGKV20]. **Race** [AZMV23, AMT17, BGOS18, GRXB19, MKV18, Pav20, WCBG17]. **RacerD** [BGOS18]. **races** [MPV21]. **Racket** [FDD<sup>+</sup>19]. **Racketensis** [SAFF<sup>+</sup>17]. **radio** [Mai17]. **Raising** [WKH20]. **RAM** [KSS20]. **Random** [HTLS22, LBR20, MN18, OMO19, WCGC18]. **Randomized** [OMN<sup>+</sup>18, WBdG<sup>+</sup>23, SLHR22, WFC<sup>+</sup>20]. **randomness** [GP22]. **rank** [DK19]. **ranked** [ZdSOS19]. **ranking** [ACN18]. **rational** [NBP<sup>+</sup>18]. **RaTT** [BGM19]. **Reachability** [BWB<sup>+</sup>21, KD23, LZR23, AAB<sup>+</sup>21, CCP18b, CMS22, FSSW22, KP22, LSDZ22, LZR21, LSZ22, Mil20, SWYZ22, TGSM19]. **Reactive** [BC18, DTSLT23, BGM19, BGM21, DMSM18, PN17, Per18]. **read** [PGIY20]. **reads** [AAJ<sup>+</sup>19, BCG<sup>+</sup>21]. **reads-from** [AAJ<sup>+</sup>19, BCG<sup>+</sup>21]. **Ready** [BSZL<sup>+</sup>18]. **real** [BSZL<sup>+</sup>18, LRV<sup>+</sup>22, LSM<sup>+</sup>22, SMC19]. **real-world** [BSZL<sup>+</sup>18, LSM<sup>+</sup>22]. **reasonable** [ADV22, FKR20]. **Reasonably** [OA18, MLBTT22, PTFT19]. **Reasoning** [ABIK22, ADZ17, LyXW21, YW21, ZA22, ZDS23, AC20, BKKM21, BLSS21, BGWXP22, BSLBG22, CB18, CTR<sup>+</sup>20, EWR19, HVH20, HBK20, KZK<sup>+</sup>18, KNNJ18, KCBR18, LLSS22, MLT17, Mor19, ÖN22, OLE19, PLSS17, RLV20, SGT<sup>+</sup>22, WCB18, YZZ22, YMC22, ZK22]. **Rebuilding** [FDD<sup>+</sup>19]. **Recalling** [AFH<sup>+</sup>18]. **reclamation** [Coh18, MW20b]. **recommendation** [LYB<sup>+</sup>19]. **reconciled** [BCC<sup>+</sup>18]. **Reconciling** [HSS23, LHJ<sup>+</sup>18, VCD<sup>+</sup>21, KRV<sup>+</sup>21]. **reconfigurable** [ABIK22]. **reconstruction** [NBP<sup>+</sup>18]. **Record** [XHdSO23]. **Recovering** [CK20]. **recovery** [CAL18]. **Recurrence**

[KMLD20, AKK<sup>+</sup>21, CLD20, INN21]. **Recurrences** [WL23]. **Recursion** [ADH<sup>+</sup>23, LL23, BGM21, CGM18, WCGC18, ZA22]. **recursions** [SSK22]. **Recursive** [CHH<sup>+</sup>23, CMcS23, LC23, ZZdSO23, KSG22, LMZ19, MNB<sup>+</sup>22, MV19, PMD21, Ram22, RSY21, SSK17, WBW<sup>+</sup>20, yXZH<sup>+</sup>20, ZdSOZ20]. **reducible** [RMH21]. **Reducing** [PHL<sup>+</sup>18, KSP22]. **Reduction** [AHLM20, XTZ<sup>+</sup>23, CCP<sup>+</sup>18a, CPT19, KMGV22, Mil20, Mor19]. **Reductions** [FV20, YAC21]. **redundancy** [DS17, LSDZ22]. **refactoring** [CWG<sup>+</sup>22, SZZ<sup>+</sup>19, VN18]. **refactoring-aware** [SZZ<sup>+</sup>19]. **Reference** [LL22]. **references** [Jab20]. **Refinement** [CT19, CLO<sup>+</sup>23, PMS<sup>+</sup>23, RKS18, SCL<sup>+</sup>23, VTC<sup>+</sup>18, AKL19, CJ17, GJJ<sup>+</sup>20, JR21, PSW21, SKE<sup>+</sup>20, SNCM19, TML<sup>+</sup>22, UST18, VVB22, WDS18]. **refinements** [LPR<sup>+</sup>20, RBG<sup>+</sup>18, ZFH<sup>+</sup>20]. **Reflection** [SHTZ<sup>+</sup>19, FKLP17, KCL22, VTC<sup>+</sup>18]. **Reflection-aware** [SHTZ<sup>+</sup>19]. **Refunctionalization** [WDR18]. **Regex** [CFLH<sup>+</sup>22, THL<sup>+</sup>20]. **Regex-dependent** [CFLH<sup>+</sup>22]. **Regions** [WJS23]. **regression** [SHTZ<sup>+</sup>19, YHW20]. **Regular** [HGJ20, LKM23, AKK<sup>+</sup>21, PHXD19, SJS20]. **regular-expression** [SJS20]. **reinforcement** [CWF<sup>+</sup>19]. **related** [CSD<sup>+</sup>21]. **relation** [TSKJB18]. **Relational** [AKL<sup>+</sup>23, BHY<sup>+</sup>20, CWF<sup>+</sup>19, GHHW18, MvdP21, QGG19, WWD18, ZWWT22, ABG<sup>+</sup>17, ASMS20, BFV18, BPPS18, DG22b, FMTSL20, HPC18, MHRV20, RBG<sup>+</sup>18, TB19, WCB18]. **Relations** [AB23, BDS23, AKL19, GST<sup>+</sup>20, GBTB21, INN21, KyKS22, LPP18, MJ20]. **Relatively** [BKKM21, UST18]. **Relativization** [PT23a]. **Relaxed** [SL23, DJKD20, DJR18, JJR20, JRB<sup>+</sup>22]. **relaxed-memory** [JRB<sup>+</sup>22]. **release** [AAJN18, DD22, YM21]. **release-acquire** [AAJN18, YM21]. **Relevant** [KMO23].

**Reliable** [BKN19, KKC17]. **reloaded** [SM19]. **Relooper** [Ram22]. **repair** [BJC<sup>+</sup>22, PHXD19, SEG<sup>+</sup>22, ZGS<sup>+</sup>22]. **ReplaceAll** [CCH<sup>+</sup>18]. **replacement** [SKR20, WYT<sup>+</sup>22]. **replacing** [VN18]. **replaying** [KSSL18]. **replicated** [KPSJ19, LRGC19, LPR<sup>+</sup>20]. **replication** [KESJ18]. **report** [ACM<sup>+</sup>18, AHM<sup>+</sup>17, BRS18, BS17, BSZL<sup>+</sup>18, CDD<sup>+</sup>19, FDD<sup>+</sup>19, HP19, HTLS22, RK22, TRWS22, YW19]. **Representation** [KCB<sup>+</sup>23, ACMZ21, LWNN19]. **representations** [KRV<sup>+</sup>21, LN22]. **Representing** [CHH<sup>+</sup>23, yXZH<sup>+</sup>20]. **reset** [BBP20, WZD<sup>+</sup>19]. **Resolution** [MSdSOK20, BXMS19, RvAP<sup>+</sup>20, ZGSN17, ZH18]. **Resolvable** [PCHB23]. **resolve** [KNNR17]. **resolved** [EDWL21]. **Resource** [DWH23, HVH20, KH21, KWR<sup>+</sup>20, MSRH20]. **Resource-Aware** [DWH23]. **resourceful** [SGT<sup>+</sup>22]. **resources** [DMS22]. **responsive** [MWA19]. **Restricting** [AM17]. **restriction** [STI20]. **results** [LN22, OD18]. **Rethinking** [KEW<sup>+</sup>20]. **Retrofitting** [SDW<sup>+</sup>20]. **Return** [JO22]. **reusable** [KE19]. **reuse** [BPB<sup>+</sup>21, DFS18, LL22]. **reusing** [CB17, HH20]. **Reverse** [SV23, DAY20, KJK<sup>+</sup>22]. **reverse-mode** [KJK<sup>+</sup>22]. **reversible** [CS21, CKS22]. **revisited** [Ada19, HMP<sup>+</sup>22, SY19, TLT19]. **Revisiting** [ZdSOZ20]. **reviver** [MNTHV21]. **revocation** [GGV<sup>+</sup>21]. **rew** [CTW21]. **Rewrite** [NWZ<sup>+</sup>21, HLK<sup>+</sup>20, LA21]. **rewrites** [LBCRK22]. **Rewriting** [GD23, HGJ20, NAJ<sup>+</sup>20]. **Rich** [BEM<sup>+</sup>21]. **rig** [CKS22]. **right** [MAH18, OBS<sup>+</sup>22]. **ring** [SHSO22]. **RNN** [KSS20]. **road** [CKP22]. **robot** [RFH<sup>+</sup>22]. **robotics** [GHMM20, MYZ20]. **Robust** [ASW23, BFV18, SGD17, SMC19]. **Robustness** [SADC23, MEND22, ML21]. **role** [CHJ<sup>+</sup>19, WCVE19]. **role-parametric** [CHJ<sup>+</sup>19]. **roles** [FG18]. **root** [BFSK20, WMW18]. **rounded** [LAGN21, LN22]. **rounding** [LN22]. **rows** [MM19]. **RRB** [Pue17]. **RRB-vectors** [Pue17]. **Ruby** [KFM21]. **Rule** [BGC23, MMKK18, NWZ<sup>+</sup>21, SZD<sup>+</sup>17]. **rules** [GS22, LA21]. **runST** [TSKJB18]. **runtime** [DdVMY19, FZSN20, LZY<sup>+</sup>20]. **Runtimes** [BKK<sup>+</sup>23, SM20]. **Rust** [HP22, AMPS19, AMP<sup>+</sup>20, ESDH21, EBP<sup>+</sup>23, JJKD18, JDKD20, LHC<sup>+</sup>23, PXA<sup>+</sup>21, WBM<sup>+</sup>21, YDJD21]. **RustBelt** [DJKD20, JJKD18]. **Ryū** [Ada19].

**S** [Cha20a]. **Safe** [EBP<sup>+</sup>23, FSX<sup>+</sup>23, KESJ18, LW22b, MGB<sup>+</sup>23, VVB22, AAC<sup>+</sup>18, BL22, BP18, CT19, DMSM18, HWC<sup>+</sup>21, KEW<sup>+</sup>20, MS19, OLC<sup>+</sup>18, PBS<sup>+</sup>17, PA19a, PVV<sup>+</sup>17, ZM19]. **Safer** [PXA<sup>+</sup>21, SNJ<sup>+</sup>19, ESDH21]. **Safety** [KP18b, ZCH23, CCW18, FV20, FJM19, GTB22, JR21, MMK<sup>+</sup>20, PHL<sup>+</sup>18, PXA<sup>+</sup>21]. **same** [CY19]. **Samples** [AZMV23]. **sampling** [ABM<sup>+</sup>21, SFRM20, ZYT<sup>+</sup>19]. **sandboxing** [PWSD20, SGDL20]. **SAT** [GXD20]. **Satisfiability** [MR22]. **Satune** [GXD20]. **saturation** [NWZ<sup>+</sup>21, WNW<sup>+</sup>21]. **SAVI** [EJMmH17]. **Scala** [GST<sup>+</sup>20, KMV19]. **Scalability** [LWUD21]. **Scalable** [LFY<sup>+</sup>22, SEP<sup>+</sup>20, WBS<sup>+</sup>22, JJO18, JR21, MMS<sup>+</sup>22, SLO19]. **ScalaLoc** [WKS18]. **scale** [DFPG21, GDBK<sup>+</sup>21, KMV19, LWW<sup>+</sup>20, LLZ<sup>+</sup>22]. **Scaling** [CGL<sup>+</sup>23, CDH17, HVM20]. **scan** [Ell17b]. **schedulers** [LRS<sup>+</sup>20, WBS<sup>+</sup>22]. **scheduling** [AAM<sup>+</sup>21, LBCRK22, Mel19, RvAP<sup>+</sup>20, SBM20]. **Scheme** [FDD<sup>+</sup>19]. **schemes** [BCK<sup>+</sup>21, CGM18]. **science** [Cha20a]. **Scilla** [SNJ<sup>+</sup>19]. **scope** [AAC<sup>+</sup>18, BSLBG22, PKW17, ZvAV22]. **scope-based** [BSLBG22]. **scoped** [BPPS20]. **Scopes** [vAPRV18]. **Scott** [BM20, HSS23]. **Scripting** [WKN<sup>+</sup>23]. **scripts** [CB17, KM17, SMTH20, WDS17]. **Sealing** [SHdM20, LTTD22]. **Seam**

[PBS<sup>+</sup>17]. **search** [JPR22, KW21, LYB<sup>+</sup>19, PWK<sup>+</sup>22, PKSW21, TU22]. **Searching** [KGdV<sup>+</sup>22]. **second** [FS22, Ham17]. **second-order** [FS22, Ham17]. **SecRSL** [YM21]. **Secure** [AFF<sup>+</sup>18, FSX<sup>+</sup>23, HC21, VCD<sup>+</sup>21]. **securing** [JJKD18]. **Security** [MHLG23, LZ18, YM21]. **Segal** [CK18]. **Selection** [BGC23, JKXH23, RAJ<sup>+</sup>17, SHTZ<sup>+</sup>19]. **Selective** [MLMD19, TLM<sup>+</sup>21, WWP20]. **Semantic** [VLG21, JRB<sup>+</sup>22, LMÖ<sup>+</sup>22, PMD21, PvAPV22, WWGW20]. **semantically** [JDT22]. **Semantics** [DK20, GMS<sup>+</sup>23, JKL<sup>+</sup>22, KHDR21, SSS<sup>+</sup>23, AAJN18, ABG<sup>+</sup>21, AAC<sup>+</sup>18, BBP20, BGJ<sup>+</sup>21, CY19, Chl21, CEEW21, DLNS21, FBG20, GJK<sup>+</sup>21, GLPS<sup>+</sup>20, GB20, HT18, HC21, Hir19, IDSW21, KMP19, KKR21, KKS21, LCTS<sup>+</sup>20, Mai17, Mel19, MRdAP18, RV18, RWV19, RWNV20, RMV22, SSSW21, SMC21, SB19, VMS<sup>+</sup>22, ZBY<sup>+</sup>21, ZA22]. **semantics-aware** [FBG20]. **Semantics-guided** [KHDR21]. **Semi** [AYB<sup>+</sup>22, GBR<sup>+</sup>20, SHSO22, CK18]. **semi-ring** [SHSO22]. **Semi-Segal** [CK18]. **semi-supervised** [GBR<sup>+</sup>20]. **Semi-symbolic** [AYB<sup>+</sup>22]. **semicolon** [JRB<sup>+</sup>22]. **semidirect** [WMM20]. **Seminaïve** [AK20]. **Semiring** [LP20]. **semistructured** [CBA17]. **sensitive** [LH22, LX19, PP20, SWYZ22, SZ21]. **sensitivity** [ABH<sup>+</sup>21, BEG<sup>+</sup>18, JO22, JJCO17, LTMS18, LX19, RKS18, TLM<sup>+</sup>21, WFC<sup>+</sup>20]. **separate** [WXWS20]. **separating** [LLSS22, YDJD21]. **Separation** [Cha20b, DPM23, MCP23, MK23, PMS<sup>+</sup>23, BWB<sup>+</sup>21, BGHT22, BHL20, BDYG<sup>+</sup>21, DMS22, FNB<sup>+</sup>21, FRS<sup>+</sup>21, GSS<sup>+</sup>22, GGN<sup>+</sup>21, HBK20, JBK22a, JLP<sup>+</sup>20, KJJ<sup>+</sup>18, LLSS22, MP22, MJP20, NBDF19, NGR<sup>+</sup>22, RBDO22, SKE<sup>+</sup>20, SRF<sup>+</sup>20, TLKC18, TGSM19, VPD19, YM21, dVP21]. **Separation-Logic** [PMS<sup>+</sup>23]. **separation-logic-verified** [VPD19]. **Seq** [SNB<sup>+</sup>19]. **Seq2Parse** [SEG<sup>+</sup>22]. **sequences** [AKK<sup>+</sup>21, ZBG<sup>+</sup>22]. **Sequential** [LRGC19, AAJ<sup>+</sup>19, Cha20b, DFPG21]. **sequentialization** [BvGKJ17, FJM19]. **serializable** [SEP<sup>+</sup>20]. **Series** [ASW23, KM20]. **server** [BRS18, LMM17a, QKB21]. **Serverless** [KZA<sup>+</sup>23, AFF<sup>+</sup>18, BGJ<sup>+</sup>21, JPBG19]. **services** [BBB<sup>+</sup>17, BC18, WCD17]. **Session** [DWH23, GY23, BP17, CY19, CPY20, CHJ<sup>+</sup>19, DHP18, FLMD19, HBK20, ITVW17, JBK22b, SY19, TV20, VHEZ21]. **session-type** [HBK20]. **sessions** [CP22, FDvdHP22, GPP<sup>+</sup>21, MP17, QKB21]. **set** [BSZL<sup>+</sup>18, THL<sup>+</sup>20]. **Sets** [Pit23, BS21, BPB<sup>+</sup>21, PJD<sup>+</sup>21, ZFS<sup>+</sup>19]. **seven** [BBRM17]. **SFI** [KNJ<sup>+</sup>22]. **shader** [DELT17]. **shadow** [CN22]. **shadows** [GDBK<sup>+</sup>21]. **Shannon** [HSS23]. **share** [DA18]. **shared** [BMTZ21, IDSW21, RC21]. **shared-memory** [BMTZ21]. **ShareJIT** [XCB<sup>+</sup>18]. **sharing** [BP17, BDG<sup>+</sup>22, EJMmH17, WHZ<sup>+</sup>19, XCB<sup>+</sup>18]. **SHARP** [LH22]. **shell** [GB20]. **shielding** [VREV19]. **shift** [WZD<sup>+</sup>19]. **shift/reset** [WZD<sup>+</sup>19]. **shifting** [LKS<sup>+</sup>20]. **Shiftry** [KSS20]. **shot** [WCH<sup>+</sup>19]. **should** [CSM<sup>+</sup>17]. **side** [BZKT21, CY19, GCY<sup>+</sup>20]. **side-channel** [GCY<sup>+</sup>20]. **sides** [CY19]. **Signature** [STI20]. **signatures** [AHLM20]. **SigVM** [ZBS<sup>+</sup>22]. **silent** [ZPZX21]. **Silver** [CLO<sup>+</sup>23]. **Simple** [AB19, AP20, BCD22, Ell18, JJR20, Par20, RKHL17]. **Simplicity** [OBL<sup>+</sup>18]. **simplification** [Mor19]. **Simplifying** [PFD<sup>+</sup>18, YAC21]. **Simply** [BGM19, BMP20]. **SimTyper** [KFM21]. **simulation** [BS17]. **simulations** [NBDF19]. **Simuliris** [GSS<sup>+</sup>22]. **since** [HK20]. **Single** [LZR23, GM21, MMK<sup>+</sup>20]. **single-pass** [MMK<sup>+</sup>20]. **Single-Source-Single-Target** [LZR23]. **site** [JO22]. **situ** [LSZ<sup>+</sup>20]. **size** [SP22]. **sized** [AVW17, AD17, Dan18].

**sized-type** [AD17]. **sketches** [YMDW21]. **sketching** [LCOC20]. **Skip** [CB17]. **Skipping** [Chl21]. **slicing** [RKS18]. **small** [GTF+20]. **Smalltalk** [Ing20]. **Smalltalk-72** [Ing20]. **smart** [AGR+20, BEM+21, CGL22, CWG+22, GKJ+18, GLTS22, GAGG+18, SNJ+19, SGL+21, WZS19, ZBS+22]. **Smoothness** [LRY23]. **SMT** [BGC20, BGC23, MR22, PWZS21, SFH22, TCJ20, VTC+18, WZS20]. **SMT-based** [BGC20]. **snapshot** [ÖN22]. **snapshots** [GFFS17]. **snowflake** [PVV+17]. **Soft** [NGTHV18]. **Software** [DA18, TU22, DMB20, FF20, KRB+21, SZZ+19, SScWS19, ZHL+20]. **solid** [SMC19]. **Solidity** [CGL22, TML+22]. **Solo** [ADN22]. **SolType** [TML+22]. **solvability** [AG22]. **solved** [HJL+18]. **Solver** [BGC23, PCAGG21, RGSNT17, WLH+17, dVPJ20]. **solver-aided** [RGSNT17, WLH+17]. **Solver-Based** [BGC23, PCAGG21]. **solvers** [PWZS21, TCJ20, WZS20]. **Solving** [BGC23, CFLH+22, GTU23, KSG22, UTGK23, WL22, BBRM17, MR22, SFH22]. **Sound** [BDCN20, BBTSTH17, DK19, EE18, KP18a, KE19, LHSM23, LVSZ23, MT17, SMC19, GRXB19, KFM21, LCTS+20, MNTHV21, Pav20, RvAP+20, YMC22]. **Soundly** [MGB+23, SKE+20]. **soundness** [BL22, GST+20, GF18, KPE18, RKHL17]. **Source** [LZR23, GCS+18, YMJ17]. **source-level** [GCS+18]. **Space** [MCP23, ADV22, AWA21, BGM19, FKR20, GLPS+20, MP22, PA19a, SCJG21, SHW+20, ZH18]. **space-efficient** [AWA21, SCJG21]. **spaces** [KGdV+22]. **SpaceSearch** [WLH+17]. **Sparcl** [MW20a]. **sparse** [CKA18, CA22, GTF+20, HHY+21, KNNR17, SHW+20]. **spatial** [OCDR17]. **specialization** [BP18, FCY+20]. **specialization-safe** [BP18]. **specific** [BKF20, BGC18, JLO20, PLS+19, SDdSO22]. **Specification** [AKL19, FSX+23, GY23, MJ22, AMPS19, CVS+17, GGN+21, KHL22, KNNR17, Rei17, WVdAE17, WBM+21, XPL+22]. **Specification-guided** [MJ22]. **Specifications** [BGM+23, BNS20, BDYG+21, BEM+21, GDM20, HWC+21, MEND22, MRX+19, NPZ+20, RvAP+20, SZD+17, SZ21, SCMS20, WCH+19, ZDDJ21]. **Specifying** [NBDF19, SSR+21, BGK+22]. **SpecSafe** [BZKT21]. **spectrum** [GF18]. **speculation** [BBF+21]. **speculative** [BZKT21, FSY+18, VDvG+21]. **speed** [BC18, PXA+21]. **Speeding** [WCB18, MKLR20]. **speedup** [HLL20]. **split** [AGLK18]. **splits** [HdSO21]. **splittable** [SV21]. **SPMD** [RLS20, RMH21]. **spotting** [HFS22]. **spreadsheet** [BBZ18]. **spreadsheets** [IS18]. **Spy** [dVPJ20]. **SQL** [BCH+22, ZXSD21, ZMSD23]. **SQLizer** [YWDD17]. **Squeak** [Ing20]. **SSA** [Lem23]. **ST** [JDT22]. **stability** [GCS+18, PBC+21]. **Stable** [MJ20, EPT18]. **stack** [BKN19, GTB22, SDB19]. **Stacked** [JDKD20]. **stage** [JGMP22]. **Staged** [Kov22, WCR19, WWP20, Yal17]. **stages** [SMM17]. **Staging** [XPL+22, WBTR20]. **Stainless** [HVK19]. **Standard** [MHR20]. **start** [WSH+19]. **state** [AFH+18, FZSN20, IEC22, RC21, TSKJB18, VN18]. **stateful** [BGJ+21, NGTHV18]. **stateless** [AAJN18, AAJ+19, KLSV18, KRV19, KMGV22]. **Static** [EHAO18, Mul22, PGFP17, SMM17, SNCM19, ZPZX21, ADN22, BGC20, BGOS18, JTD21, LGTS20, LYSM22, MRdAP18, MOP21, PvAPV22, SHTZ+19, SGL+21, YvGK18, ZGSN17]. **Statically** [ABM+21, PCHB23, ZFH+20, CHJ+19, DA18, LC21, NDA+19, PVSK18]. **statically-typed** [CHJ+19, LC21, PVSK18]. **Steel** [FRS+21]. **SteelCore** [SRF+20]. **Step** [AB23, BS17, GST+20, SKD21]. **step-by-step** [GST+20]. **Step-Indexed** [AB23, GST+20]. **step-indexing** [SKD21]. **Stepstone** [CNH20]. **StkTokens** [SDB19].

**stochastic** [LYRY20]. **storage** [FMTSL20]. **stores** [LRGC19, RMV22]. **strangers** [CSM<sup>+</sup>17]. **strategies** [HLK<sup>+</sup>20]. **Strategy** [FK18]. **Stratified** [FKP23]. **stream** [KNSA20, MV20]. **streaming** [AYB<sup>+</sup>22, KM20]. **StreamQL** [KM20]. **streams** [ABM<sup>+</sup>21]. **Strict** [HT18, GJK<sup>+</sup>21, KPH22]. **String** [DGGM23, HJL<sup>+</sup>18, CCH<sup>+</sup>18, CFLH<sup>+</sup>22, TCJ20]. **stripped** [DAY20]. **stroll** [SAFF<sup>+</sup>17]. **Strong** [SJSM20, BBBK17, BVG19, BCD22, GKMB17]. **strongest** [ZK22]. **strongly** [HKSS21]. **Structural** [RK22, BAY20, Hir19, JSXH20, LYB<sup>+</sup>19, MS19, MT21, PC22]. **Structurally** [LC23]. **Structure** [GLR<sup>+</sup>20, Coh18, QSL17]. **structured** [EWR19, MGT21, Ram22, ZH18]. **Structures** [DKPS23, CHJ<sup>+</sup>19, FBP<sup>+</sup>21, KSW18, MW20b, PKSW21, WCMH19, WBW<sup>+</sup>20, YC22]. **students** [WC17]. **Study** [Rot21, BFSK20, CSD<sup>+</sup>21, CGL22, CAMS20, GDBK<sup>+</sup>21, GCS<sup>+</sup>18, KMV19, LWW<sup>+</sup>20, MHN19, PP22]. **Style** [MSBO23, BGM19, BGWXP22, ML21, SBO20, VRC22]. **subclass** [VN18]. **Subcubic** [CMS22]. **subgraph** [SdSCQ19]. **sublanguage** [YW19]. **substitution** [PT20]. **subsumes** [BM20]. **subtracting** [YF18]. **Subtraction** [XHdSO23]. **subtype** [WHZ<sup>+</sup>19]. **Subtyping** [ZZdSO23, GPP<sup>+</sup>21, MPAG20, MSdSOK20, MT18, NBP<sup>+</sup>18, Par20, Rot21, SG21, YdSO17, ZdSOZ20]. **sugar** [PKW17]. **suggestions** [MGL<sup>+</sup>19]. **Super** [ACF17]. **superior** [JO22]. **supermartingales** [ACN18]. **superoptimization** [MKLR20]. **superposition** [YC22]. **supervised** [CR19, GBR<sup>+</sup>20]. **superword** [MA18]. **sure** [DFD21, HFCG19, MMKK18]. **surviving** [GKJ<sup>+</sup>18]. **swapping** [SdSCQ19]. **swift** [BSRC19]. **Symbolic** [CKT18, Ell21, LB23, NcS17, SGL<sup>+</sup>21, SLHR22, AYB<sup>+</sup>22, BT18, GCY<sup>+</sup>20, HBP19, KHL22, KKT19, MSR20, PPSW20, PNWT22, TLKC18, WCB18, WBTR20, YSHZ21]. **symbolic-heap** [TLKC18]. **symmetric** [BJSO20, CKS22, MMF<sup>+</sup>19, PHSR19]. **Symmetries** [CKS22]. **symptoms** [BFSK20]. **Synbit** [YMDW21]. **synchronization** [FSK<sup>+</sup>22, MPV21, Mel19]. **synchronization-preserving** [MPV21]. **synchronizing** [DTM<sup>+</sup>18]. **synchronous** [BBP20, CY19, GTT21]. **synchrony** [DWZ20]. **synergistic** [MR22]. **syntactic** [PKW17]. **syntax** [ABF20, FS22, KPSL18, YNIC19]. **syntaxes** [AAC<sup>+</sup>18]. **synth** [PGIY20]. **Synthesis** [BNS20, BGC23, BOW<sup>+</sup>23, CWG<sup>+</sup>22, DTSLT23, GHMM23, JKXH23, KO23, LC23, WDS17, WLJ<sup>+</sup>23, ASMS20, BPP20, BLF<sup>+</sup>19, BLSS21, BFV18, CB18, CPB<sup>+</sup>22, FK18, FBP<sup>+</sup>21, FBG20, GBR<sup>+</sup>20, GRS<sup>+</sup>21, GDM20, GJJ<sup>+</sup>20, HPRW21, JGW<sup>+</sup>20, JXXH21, JPR22, KHDR21, KCBR18, Lee21, MRX<sup>+</sup>19, MCF<sup>+</sup>22, MGL<sup>+</sup>19, MNB<sup>+</sup>22, MJ22, MPB<sup>+</sup>22, NAJ<sup>+</sup>20, PWSD20, QSL17, RMZ<sup>+</sup>20, RRG<sup>+</sup>21, SSSC<sup>+</sup>22, SVR17, TLKC18, WDS18, WWD18, WYT<sup>+</sup>22, WGP<sup>+</sup>21, YWDD17, ZXSD21, ZGS<sup>+</sup>22]. **synthesis-aided** [JGW<sup>+</sup>20]. **Synthesis-as-Rule-Selection** [BGC23]. **synthesis-based** [CB18]. **Synthesis-powered** [CWG<sup>+</sup>22]. **synthesising** [BCB21]. **Synthesizing** [AH18, ASD<sup>+</sup>21, FSK<sup>+</sup>22, GS22, KMD<sup>+</sup>22, KLMM22, MMF<sup>+</sup>18, MFP<sup>+</sup>18, MMF<sup>+</sup>19, SKR20, SZD<sup>+</sup>17, SA19, END<sup>+</sup>18, GXD20, LPM<sup>+</sup>22, PJP<sup>+</sup>18, YMDW21]. **System** [SU23, CEEW21, CFD<sup>+</sup>17, HWC<sup>+</sup>21, JGMP22, KPP21, LLB<sup>+</sup>20, MAN17, NDA<sup>+</sup>19, NAJ<sup>+</sup>20, PWSD20, RSY21, SScWS19, SKE<sup>+</sup>20, UST18, WKS18, HVK19]. **systematic** [PES20]. **Systems** [PMS<sup>+</sup>23, WJS23, AB20, ABIK22, BHP<sup>+</sup>19, CB18, CBTB20, CAMS20, DFPG21, DPQS18, GKMB17, HKSS21, IDSW21, JWJ<sup>+</sup>21, LWUD21, LLZ<sup>+</sup>22, LMÖ<sup>+</sup>22, MMJ18, OMN<sup>+</sup>18, OMO19, Pue17,

RNDJ19, RS20, SJL19]. **SyTeCi** [Jab20].

**t** [KPP21]. **tactics** [KZK<sup>+</sup>18]. **TacTok** [FBG20]. **Tail** [LL23]. **taint** [GS17, GS17]. **taken** [CKP22]. **Taking** [KCB<sup>+</sup>23].

**Taming** [AGR<sup>+</sup>20, CC20, KL21, LSDZ22, CTW21].

**tandem** [LZ17]. **Tangents** [RPF<sup>+</sup>23]. **Tape** [BDS23]. **Target** [LZR23]. **tasks** [CSM<sup>+</sup>17].

**taxation** [KNJ<sup>+</sup>22]. **Taylor** [BM20].

**Teaching** [ACM<sup>+</sup>18, HP19]. **technique** [SZZ<sup>+</sup>19]. **techniques** [Dan18]. **technology** [CW20]. **Template** [GHMM23, XPL<sup>+</sup>22].

**Template-Based** [GHMM23]. **Temporal** [SU23, UTGK23, ZCH23, BNS20, DHP18, GDM20, GTB22, GLSY20, LRS<sup>+</sup>20, LSC<sup>+</sup>22, RMV22]. **temps** [GTB22]. **tensor** [CKA18, CA22, KKC<sup>+</sup>17, LWY<sup>+</sup>22, LBCRK22, SHW<sup>+</sup>20]. **tensor-program** [LBCRK22]. **term** [HGJ20, NAJ<sup>+</sup>20].

**Termination** [GTU23, HH20, ACN18, CP22, DFD21, GBTB21, HFCG19, LAF<sup>+</sup>20, LY18, MMKK18, SZ21, SKD21, WFC<sup>+</sup>20].

**termination-insensitive** [GBTB21]. **termination-sensitive** [SZ21]. **Test** [SPKT18, ASD<sup>+</sup>21, CPKG17, KM17, RNDJ19, RGSNT17, SHTZ<sup>+</sup>19]. **test-input** [CPKG17]. **Testing** [DEO<sup>+</sup>20, PN17, WBdG<sup>+</sup>23, ZRH<sup>+</sup>20, AJRG21, BKV<sup>+</sup>21, DPQS18, DELT17, HTLS22, FW22, KNSA20, KSTM20, KM17, LHP19, LZY<sup>+</sup>20, LBR20, MN18, MDBL20, OMN<sup>+</sup>18, OMO19, PWZS21, SSR<sup>+</sup>21, WZS20]. **tests** [LWW<sup>+</sup>20, LZ17, SFH<sup>+</sup>20, ZdAG22]. **text** [GLR<sup>+</sup>20]. **textual** [ABF20]. **their** [AHLM20, AAC<sup>+</sup>18, RSPC17]. **them** [DA18]. **theorem** [KM23]. **Theorems** [AJSW17, BDYG<sup>+</sup>21, PA19b]. **Theoretic** [FAM23, KyKS22]. **theoretical** [BGWXP22]. **theories** [DLNS21, Ham17].

**Theory** [ASW23, KKZ23, VSC23, AÖV18, AG22, CH19, CTW21, DG22b, FSSW22, GSB19, HMdL22, Kov22, MLBTT22, NLA19, NVD17, PTFT19, RGGH21, SG21, TCJ20].

**thin** [OD18]. **Thread** [DMSM18, BMTZ22]. **Thread-safe** [DMSM18]. **threats** [TBB<sup>+</sup>19]. **three** [SDL18, ZRH<sup>+</sup>19]. **three-level** [ZRH<sup>+</sup>19]. **three-way** [SDL18]. **Thriving** [Str20]. **tiers** [FLMD19]. **Tight** [AGLK18, MSBO23]. **Time** [HP23, BPP20, BBG<sup>+</sup>20, EWR19, FKR20, KM20, MV20, NJA20, RAT17, SFH<sup>+</sup>20, WFC<sup>+</sup>20, WSH<sup>+</sup>19]. **timeline** [LRS<sup>+</sup>20]. **timelines** [LSC<sup>+</sup>22]. **timing** [GCY<sup>+</sup>20].

**TiML** [WWC17]. **TLA** [KKT19]. **TLC** [GLSY20]. **Tlön** [LW22a]. **together** [KNNJ18, NJA20]. **token** [CC23, SdSCQ19]. **tolerance** [BGC18, MN18]. **Tolerant** [WBdG<sup>+</sup>23, MDSM19, Per18, VHEZ21]. **too** [DA18, HFS22]. **tool** [KPSL18]. **toolchain** [CG21, SMN<sup>+</sup>18]. **tools** [WLH<sup>+</sup>17]. **Top** [BOW<sup>+</sup>23, Lee21, ZdAG22]. **Top-Down** [BOW<sup>+</sup>23, Lee21]. **Tower** [YC22]. **towers** [AR18]. **Trace** [LCTS<sup>+</sup>20, OMO19, AKL19]. **tracking** [BWB<sup>+</sup>21]. **tractable** [EE18]. **trained** [RRG<sup>+</sup>21, VLG21]. **transactional** [BE19, DD22, KRB<sup>+</sup>21, LyXK<sup>+</sup>22, RWV19].

**Transactions** [DJR18]. **transducers** [CFLH<sup>+</sup>22, HJL<sup>+</sup>18]. **transfer** [USM22]. **Transfinite** [SKD21]. **transformation** [KPSL18, ST21, SHW<sup>+</sup>20, WMLK18].

**Transformations** [SV23, ABD21, BP21, CN22, GBR<sup>+</sup>20, GCS<sup>+</sup>18, LA21].

**transformer** [SB19]. **transformers** [KMD<sup>+</sup>22]. **Transforming** [LZ17].

**Transitioning** [MT21]. **transitions** [KNJ<sup>+</sup>22]. **transitive** [LSDZ22].

**Translating** [BCH<sup>+</sup>22, ESDH21, EBP<sup>+</sup>23].

**Translation** [Lem23, ZMSD23, BCRA18, CC22, GRB20, HP22, JDT22, Ram22, ZXSD21].

**transparent** [WMLK18]. **Transpilation** [WKN<sup>+</sup>23, MCF<sup>+</sup>22]. **transport** [TTS18].

**Transpose** [RPF<sup>+</sup>23]. **transprecision** [GTF<sup>+</sup>20, PUW<sup>+</sup>21]. **traversals** [FKE<sup>+</sup>20, KPW18, KRV<sup>+</sup>21, SSK17]. **tree** [AM17, KRV<sup>+</sup>21, SSK17, WDS17].

**tree-traversals** [KRV<sup>+</sup>21]. **TreeFuser** [SSK17]. **Trees** [CHH<sup>+</sup>23, SZ21, yXZH<sup>+</sup>20]. **triangle** [PT20]. **Truly** [KMGV22, ZBS<sup>+</sup>22]. **trustworthy** [VREV19]. **TSO** [AAR20, AAB<sup>+</sup>21, BCG<sup>+</sup>21, KL21, RV18]. **tunneling** [JJO18, ZM19]. **Turning** [BBP23]. **Twist** [YMC22]. **Two** [CY19, Kov22]. **two-level** [Kov22]. **Type** [ADH<sup>+</sup>23, BBKO22, BCRA18, CPB<sup>+</sup>22, KM17, LVSZ23, PBC<sup>+</sup>21, SU23, WH19, XHdSO23, AÖV18, AB20, AAC<sup>+</sup>18, AD17, BXMS19, BSLBG22, CT19, CC20, CLNL22, CH19, CB18, CBTB20, CVG<sup>+</sup>17, CWG<sup>+</sup>22, CEEW21, CFD<sup>+</sup>17, CAMS20, CTW21, DPP18, EDWL21, ESCL22, GSB19, GF18, GJJ<sup>+</sup>20, HGJ20, HWC<sup>+</sup>21, HBK20, HFS22, JME20, KFM21, KFEJ19, Kov22, LWUD21, LLB<sup>+</sup>20, MLBTT22, Mil20, MS19, MSI19, MV19, ME17, NDA<sup>+</sup>19, NLA19, NVD17, OUM18, PES20, PWZS21, Par20, PC22, PSW21, PTFT19, PCAGG21, RGGH21, RvAP<sup>+</sup>20, SSC<sup>+</sup>17, SBF<sup>+</sup>20, SG21, UST18, VTV18, VN18, WZS20, WC17, WCC17, ZM17, ZdSOS19, ZvAV22]. **Type-and-Effect** [SU23, LLB<sup>+</sup>20]. **type-aware** [PWZS21, WZS20]. **Type-Based** [ADH<sup>+</sup>23, BSLBG22, Mil20]. **type-cases** [CLNL22]. **type-checkers** [ZvAV22]. **type-checking** [ZvAV22]. **Type-directed** [CPB<sup>+</sup>22, OUM18]. **type-error** [WCC17]. **Type-guided** [WH19, GJJ<sup>+</sup>20]. **Type-level** [BBKO22, CT19, KFEJ19]. **Type-Preserving** [LVSZ23, BCRA18]. **type-safe** [CT19, MS19]. **type-theory** [RGGH21]. **typechecking** [DK19]. **typeclass** [LPR<sup>+</sup>20]. **Typed** [MSBO23, YGG<sup>+</sup>23, BMP20, CHJ<sup>+</sup>19, CSD<sup>+</sup>21, CDD<sup>+</sup>19, ECK<sup>+</sup>22, EGT22, FRS<sup>+</sup>21, HG22, JDT22, KZK<sup>+</sup>18, LC21, OVCH19, PVSK18, PH21, PRT<sup>+</sup>18, RKV21, SM19, SRF<sup>+</sup>20, Tej20, VMA19, XPL<sup>+</sup>22, vdRPR<sup>+</sup>22]. **Types** [DWH23, GY23, LHC<sup>+</sup>23, PT23a, PMS<sup>+</sup>23, RHdSOZ23, XHdSO23, AVW17, ADV22, AJSW17, AMPS19, BP17, BWB<sup>+</sup>21, BBKO22, BCRA18, CCEW18, CK18, CL17, CY19, CHJ<sup>+</sup>19, CH19, CKT18, CS21, CA18b, DdVMY19, DFD21, Dan18, DHP18, DFS18, DK19, EDWL21, ETG19, FLMD19, GYK<sup>+</sup>20, GFD19, HFS22, HdSO21, ITVW17, JBK22b, JGMP22, KSG22, KPSJ19, KKA19, KWR<sup>+</sup>20, Kov20, LGFD21, LCTS<sup>+</sup>20, LLZ<sup>+</sup>22, LMZ19, LPR<sup>+</sup>20, MPAG20, MvdP20, MvdP21, MPV18, MW20b, MP20, MV19, MM19, MT18, OBL<sup>+</sup>18, OLE19, PC22, PMD21, RMV22, RKHL17, RL19, RC21, SY19, ST21, SKB<sup>+</sup>22, SM20, TML<sup>+</sup>22, TV20, TGKV20, VVB22, VMA19, WKH20, WvDAE17, WCVE19, WMW18, XLD20, YD22, ZN21, vAPRV18]. **Types-to-PERs** [PT23a]. **TypeScript** [KM17, WSG<sup>+</sup>20]. **typestate** [CAMS20, CG21]. **typing** [BBTSTH17, CCW18, CC20, CL17, CLPS19, CLNL22, CSD<sup>+</sup>21, CJ17, FGS<sup>+</sup>18, FKT21, ISI17, MSI19, MNTHV21, MT17, MT21, RAT17, SCJG21, VHEZ21, YdSO17]. **typing-related** [CSD<sup>+</sup>21]. **typings** [AGLK18]. **UDF** [ZXSD21]. **ultimate** [YW19]. **unbiased** [ZYT<sup>+</sup>19]. **Unbounded** [WJS23, DMS22, GRXB19]. **unchained** [Pot17, UdM22]. **Undecidability** [HL20]. **Undecidable** [DZ23]. **Understanding** [MKTD17, BPB<sup>+</sup>21, OD18]. **Unfolding** [CC23]. **unidirectional** [YMDW21]. **unification** [CKN<sup>+</sup>23, JXXH21, MvdP20, MvdP21]. **Unified** [VLRH23, AB20, BBRM17, CTR<sup>+</sup>20, GS17]. **Unifying** [AGK23, NPZ<sup>+</sup>20, PVSK18, YdSO17, ZDS23, RGGH21, ZM17]. **unimodular** [SSK22]. **unimodular-like** [SSK22]. **uninitialized** [GGV<sup>+</sup>21]. **uninterpreted** [SFH<sup>+</sup>20]. **union**

[CL17, CLNL22, HdSO21, MT18, WMW18]. **unique** [vdRS22]. **uniqueness** [SKB<sup>+</sup>22]. **UniRec** [SSK22]. **units** [XLD20]. **univalence** [ACMZ21, VMA19]. **Univalent** [CK18, TTS18]. **universal** [DPP18, WAPJ22]. **Universe** [FAM23, AAC<sup>+</sup>18, EC22]. **Unix** [HKVR21]. **unleashing** [TLM<sup>+</sup>21]. **Unrealizability** [KDR23]. **Unsafe** [MGB<sup>+</sup>23, AMP<sup>+</sup>20]. **unsound** [HFS22]. **unsoundness** [GFFS17]. **unstructured** [Ram22]. **unusual** [WZS20]. **unwinding** [BKN19]. **Up-to** [Dan18]. **upon** [DS17]. **usable** [CAMS20]. **usage** [CEEW21, FSD21, HVH20, KNNR17]. **usage-aware** [CEEW21]. **usage-based** [KNNR17]. **usages** [BFSK20]. **use** [AMP<sup>+</sup>20, GV19, KSP22, KMV19, MKTD17]. **User** [WKN<sup>+</sup>23, FKLP17, WCC17]. **User-Customizable** [WKN<sup>+</sup>23]. **user-defined** [FKLP17]. **users** [RFH<sup>+</sup>22]. **using** [ACM<sup>+</sup>18, AFF<sup>+</sup>18, ASMS20, AHM<sup>+</sup>17, BDCN20, CHJ<sup>+</sup>19, CWF<sup>+</sup>19, CR20, CTR<sup>+</sup>20, CN22, Dan18, DAY20, DEO<sup>+</sup>20, GGV<sup>+</sup>21, GTB22, HP19, IS18, INN21, JGMP22, JPR22, KFM21, KLMM22, LHC<sup>+</sup>23, LKM23, MCF<sup>+</sup>22, MSR20, MNB<sup>+</sup>22, MV20, NWZ<sup>+</sup>21, SDB19, SC18, SM20, WDS17, WDS18, YMDW21, ZvAV22].

**v8** [Rei17]. **v8-m** [Rei17]. **validation** [CC22, GRB20, Rei17, ŠKV<sup>+</sup>18]. **Validity** [KTST23, TBB<sup>+</sup>19]. **Value** [CPT19, AG22, DNFK22, FKR20, HH19, KMLD20, ST21, SGL<sup>+</sup>21, SNCM19, SCZW20]. **Value-centric** [CPT19]. **value-flow** [SGL<sup>+</sup>21]. **value-flow-based** [SCZW20]. **Values** [LHSM23]. **variability** [SC20]. **variability-aware** [SC20]. **variable** [KM22, WFC<sup>+</sup>20]. **variable-dependent** [WFC<sup>+</sup>20]. **variables** [CFLH<sup>+</sup>22, JLP<sup>+</sup>20, WCGC18]. **variance** [PHSR19, Rot21]. **variants** [LAGN21]. **Variational** [LRY23, JKL<sup>+</sup>22, LYRY20, WMLK18]. **various** [UAM17]. **Vector** [LKM23]. **vectors** [Pue17]. **Veracity** [CFKP22]. **Verification** [AKL<sup>+</sup>23, BGM<sup>+</sup>23, DPM23, FKP23, FSX<sup>+</sup>23, KTST23, SSS<sup>+</sup>23, SU23, SADC23, UTGK23, WJS23, WL23, ZBS<sup>+</sup>23, AAR20, ADDN17, AMPS19, BBG<sup>+</sup>20, BZSL19, BKKM21, BMTZ21, BMTZ22, BEM<sup>+</sup>21, BOR18, CWF<sup>+</sup>19, CVS<sup>+</sup>17, CMP20, EUR<sup>+</sup>17, GSW21, GGN<sup>+</sup>21, HKGK20, HPRW21, HP22, HKSS21, HFCG19, JWJ<sup>+</sup>21, JR21, KESJ18, KKR21, LWUD21, LLZ<sup>+</sup>22, MJ21, MNTHV21, NGTHV18, NGR<sup>+</sup>22, PETK19, SMN<sup>+</sup>18, SFH<sup>+</sup>20, SCK<sup>+</sup>20, SKE<sup>+</sup>20, SFH22, SGD17, TGSM19, TB19, UST18, VTC<sup>+</sup>18, WBW<sup>+</sup>20, WBM<sup>+</sup>21, WBS<sup>+</sup>22, YHW20, ZSL<sup>+</sup>22, SBF<sup>+</sup>20]. **Verification-Preserving** [DPM23]. **Verified** [BBP23, CLO<sup>+</sup>23, CL21, KHL22, LVH<sup>+</sup>22, LBCRK22, PZR<sup>+</sup>17, SDL18, WZSK22, BBF<sup>+</sup>21, BBP20, GLPS<sup>+</sup>20, HRH<sup>+</sup>21, LPM<sup>+</sup>22, LYRY20, LyXK<sup>+</sup>22, MAN17, VPD19, WXWS20, ZFH<sup>+</sup>20]. **Verifier** [LCT<sup>+</sup>23, FF20, HVK19]. **Verifiers** [DPM23]. **verify** [BSZL<sup>+</sup>18]. **Verifying** [BvGKJ17, FSD21, FJM19, GKMB17, LHC<sup>+</sup>23, LPR<sup>+</sup>20, ML21, NAJ<sup>+</sup>20, OCDR17, ONK<sup>+</sup>17, PKSW21, PMS<sup>+</sup>23, WDL21, BGC18, DD22, GSS<sup>+</sup>22, GHMM20, LSM<sup>+</sup>22, LRS<sup>+</sup>20, LSC<sup>+</sup>22, WLH<sup>+</sup>17, dVPJ20]. **Verilog** [FMG<sup>+</sup>20]. **Versatile** [BAS<sup>+</sup>18]. **version** [ZH18]. **versus** [DPP18, RK22]. **Verus** [LHC<sup>+</sup>23]. **VESPA** [MOP21]. **via** [BvGKJ17, BZSL19, BPPS20, CK18, CWG<sup>+</sup>22, FJM19, GTU23, HC21, JJO18, JSXH20, KyKS22, LWNN19, LZR23, LBCRK22, LYB<sup>+</sup>19, MSdSOK20, MNTHV21, MMS<sup>+</sup>22, NPWW22, PNPW22, RKS18, RS20, SMC19, SV23, WJS23, WCMH19, WCR19, YSHZ21, ZM19, ZH18, ZZX<sup>+</sup>20]. **View** [DFLL23, AB20]. **VIP** [LSM<sup>+</sup>22]. **Virtual** [BBTK<sup>+</sup>17, LRS<sup>+</sup>20, MRG18, LSC<sup>+</sup>22].

**virtuality** [EJMmH17]. **Visibility** [ÖN22]. **visibly** [JKT21]. **vision** [AAM<sup>+</sup>21]. **Visitors** [Pot17]. **visual** [ABF20]. **visualisations** [PNPW22]. **Visualization** [WFB<sup>+</sup>20]. **visualizations** [CPB<sup>+</sup>22]. **VLIW** [SBM20]. **VM** [RAT17]. **volatile** [CFL17, CAL18, FZSN20, LMM17a]. **volatile-by-default** [LMM17a].

**wait** [CSM<sup>+</sup>17]. **warmup** [BBTK<sup>+</sup>17]. **WATCHER** [LSZ<sup>+</sup>20]. **way** [GHHW18, HLK<sup>+</sup>20, SDL18]. **waypoints** [PLS<sup>+</sup>19]. **ways** [SC18]. **Weak** [KKZ23, KLV23, RWV19, BKV<sup>+</sup>21, FKR20, KNNJ18, LNO<sup>+</sup>21, MJ21, RV18]. **Weakening** [WRPP19]. **weakly** [RNDJ19]. **web** [AMT17, CB17, IS18, PETK19]. **WebAssembly** [KNJ<sup>+</sup>22, Tit22, WRPP19]. **WebRelate** [IS18]. **Weighted** [BGK<sup>+</sup>22, KW21]. **Well** [CSD<sup>+</sup>21, SV23, MT17, SDB19]. **well-bracketed** [SDB19]. **Well-Known** [SV23]. **Well-typed** [CSD<sup>+</sup>21]. **were** [WC17]. **Whatever** [COER19]. **Where** [MHLG23, JGMP22]. **Whip** [WCD17]. **Who** [Rei17]. **whole** [WCR19, ZYT<sup>+</sup>19]. **whole-program** [WCR19, ZYT<sup>+</sup>19]. **wild** [KMV19]. **Wildcards** [Bie22]. **within** [WCMH19]. **without** [AJSW17, BGM19, BDA20, COER19, FLMD19, GCST19, JLO20, KNJ<sup>+</sup>22, MCL17]. **witness** [AFH<sup>+</sup>18, Bie22]. **Witnessability** [DZ23]. **woods** [SAFF<sup>+</sup>17]. **work** [LKS<sup>+</sup>20, RSPC17]. **workgroup** [SSR<sup>+</sup>21]. **World** [BCG<sup>+</sup>20, BSZL<sup>+</sup>18, BZKT21, LSM<sup>+</sup>22, Str20]. **worst** [WH19]. **worst-case** [WH19]. **write** [LC21, RFH<sup>+</sup>22]. **wrong** [CSD<sup>+</sup>21].

**x86** [AAB<sup>+</sup>21, KL21, RLV20, RWNV20, RMV22]. **x86-TSO** [AAB<sup>+</sup>21, KL21].

**YARPGen** [LBR20]. **years** [WBE20].

**Yoneda** [BG18].

**Z** [KTST23]. **zero** [DFS18, Jac21, KNJ<sup>+</sup>22, WAA22, WCH<sup>+</sup>19]. **zero-cost** [DFS18]. **zip-pers** [DA20].

## References

**Abdulla:2021:DRU**

[AAB<sup>+</sup>21] Parosh Aziz Abdulla, Mohamed Faouzi Atig, Ahmed Bouajjani, K. Narayan Kumar, and Prakash Saivasan. Deciding reachability under persistent x86-TSO. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):56:1–56:32, January 2021. URL <https://dl.acm.org/doi/10.1145/3434337>.

**Allais:2018:TSS**

[AAC<sup>+</sup>18] Guillaume Allais, Robert Atkey, James Chapman, Conor McBride, and James McKinna. A type and scope safe universe of syntaxes with binding: their semantics and proofs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):90:1–90:30, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236785>.

**Abdulla:2019:OSM**

[AAJ<sup>+</sup>19] Parosh Aziz Abdulla, Mohamed Faouzi Atig, Bengt Jonsson, Magnus Lång, Tuan Phong Ngo, and Konstantinos Sagonas. Optimal stateless model checking for reads-from equivalence under sequential consistency. *Proceed-*

- ings of the ACM on Programming Languages (PACMPL)*, 3 (OOPSLA):150:1–150:29, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360543.33619>
- [AAJN18] Parosh Aziz Abdulla, Mohamed Faouzi Atig, Bengt Jonsson, and Tuan Phong Ngo. Optimal stateless model checking under the release-acquire semantics. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (OOPSLA):135:1–135:29, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276505>. **Abdulla:2018:OSM**
- [AAM<sup>+</sup>21] Luke Anderson, Andrew Adams, Karima Ma, Tzu-Mao Li, Tian Jin, and Jonathan Ragan-Kelley. Efficient automatic scheduling of imaging and vision pipelines for the GPU. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):109:1–109:28, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485486>. **Anderson:2021:EAS**
- [AAR20] Parosh Aziz Abdulla, Mohamed Faouzi Atig, and Rojin Rezvan. Parameterized verification under TSO is PSPACE-complete. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):26:1–26:29, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371094>. **Abdulla:2020:PVU**
- [AB20] Andreas Abel and Jean-Philippe Bernardy. A unified view of modalities in type systems. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):90:1–90:28, August 2020. URL <https://dl.acm.org/doi/10.1145/3408972>. **Abel:2020:UVM**
- [AB23] Alejandro Aguirre and Lars Birkedal. Step-indexed logical relations for countable non-determinism and probabilistic choice. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):2:1–2:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571195>. **Aguirre:2023:SIL**
- [ABD21] Martin Avanzini, Gilles Barthe, and Ugo Dal Lago. On continuation-passing transformations and expected cost
- Avanzini:2021:CPT**

- analysis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP): 87:1–87:30, August 2021. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473592>. [ABH<sup>+</sup>21]
- [ABF20] Leif Andersen, Michael Ballantyne, and Matthias Felleisen. Adding interactive visual syntax to textual code. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):222:1–222:28, November 2020. URL <https://dl.acm.org/doi/10.1145/3428290>. [ABIK22]
- [ABG<sup>+</sup>17] Alejandro Aguirre, Gilles Barthe, Marco Gaboardi, Deepak Garg, and Pierre-Yves Strub. A relational logic for higher-order programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP): 21:1–21:??, September 2017. CODEN ????. ISSN 2475-1421. [ABM<sup>+</sup>21]
- [ABG<sup>+</sup>21] Alejandro Aguirre, Gilles Barthe, Marco Gaboardi, Deepak Garg, Shin ya Katsumata, and Tetsuya Sato. Higher-order probabilistic adversarial computations: categorical semantics and program logics. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP): 93:1–93:30, August 2021. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473598>. [Aguirre:2021:PEC]
- [Aguirre:2021:AIV] Alejandro Aguirre, Gilles Barthe, Justin Hsu, Benjamin Lucien Kaminski, Joost-Pieter Katoen, and Christoph Matheja. A pre-expectation calculus for probabilistic sensitivity. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):52:1–52:28, January 2021. URL <https://dl.acm.org/doi/10.1145/3434333>. [Aguirre:2021:PEB]
- [Aguirre:2021:RLH] Alejandro Aguirre, Gilles Barthe, Marco Gaboardi, Deepak Garg, and Pierre-Yves Strub. A relational logic for higher-order programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):130:1–130:??, October 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563293>. [Aguirre:2021:SBM]
- [Ahrens:2022:RAD] Emma Ahrens, Marius Bozga, Radu Iosif, and Joost-Pieter Katoen. Reasoning about distributed reconfigurable systems. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):130:1–130:??, October 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563293>. [Atkinson:2021:SBM]
- [Atkinson:2021:SBM] Eric Atkinson, Guillaume Baudart, Louis Mandel, Charles Yuan, and Michael Carbin. Statically bounded-memory delayed sampling for probabilistic streams. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):115:1–115:28, October 2021. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485492>.

- [AC20] **Atkinson:2020:PRP**  
Eric Atkinson and Michael Carbin. Programming and reasoning with partial observability. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):200:1–200:28, November 2020. URL <https://dl.acm.org/doi/10.1145/3428268>. [ACN18]
- [ACF17] **Andersen:2017:SLM**  
Leif Andersen, Stephen Chang, and Matthias Felleisen. Super 8 languages for making movies (functional pearl). *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):30:1–30:??, September 2017. CODEN ???? ISSN 2475-1421. [AD17]
- [ACM<sup>+</sup>18] **Almeida:2018:THP**  
José Bacelar Almeida, Alcino Cunha, Nuno Macedo, Hugo Pacheco, and José Proença. Teaching how to program using automated assessment and functional glossy games (experience report). *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):82:1–82:17, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236777>. [Ada19]
- [ACMZ21] **Angiuli:2021:IRI**  
Carlo Angiuli, Evan Cavallo, Anders Mörtberg, and Max Zeuner. Internalizing representation independence with univalence. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):12:1–12:30, January 2021. URL <https://dl.acm.org/doi/10.1145/3434293>. [Agrawal:2018:LRS]
- Agrawal:2018:LRS**  
Sheshansh Agrawal, Krishnendu Chatterjee, and Petr Novotný. Lexicographic ranking supermartingales: an efficient approach to termination of probabilistic programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):34:1–34:??, January 2018. CODEN ???? ISSN 2475-1421. [Avanzini:2017:AST]
- Avanzini:2017:AST**  
Martin Avanzini and Ugo Dal Lago. Automating sized-type inference for complexity analysis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):43:1–43:??, September 2017. CODEN ???? ISSN 2475-1421. [Adams:2019:RRP]
- Adams:2019:RRP**  
Ulf Adams. Ryū revisited: printf floating point conversion. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):169:1–169:23, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360595>. [Albarghouthi:2017:FPV]
- Albarghouthi:2017:FPV**  
Aws Albarghouthi, Loris D’Antoni, Samuel Drews, and Aditya V. Nori. FairSquare: probabilistic verification of program fair-

- ness. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):80:1–80:??, October 2017. CODEN ????. ISSN 2475-1421. [ADV22]
- [ADH<sup>+</sup>23] Pedro Abreu, Benjamin Delaware, Alex Hubers, Christa Jenkins, J. Garrett Morris, and Aaron Stump. A type-based approach to divide-and-conquer recursion in Coq. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):3:1–3:??, January 2023. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571196>. [ADZ17]
- [ADN22] Chiké Abuah, David Darais, and Joseph P. Near. Solo: a lightweight static analysis for differential privacy. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):150:1–150:??, October 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563313>. [AFF<sup>+</sup>18]
- [ADV21] Beniamino Accattoli, Ugo Dal Lago, and Gabriele Vanoni. The (in)efficiency of interaction. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):51:1–51:33, January 2021. URL <https://dl.acm.org/doi/10.1145/3434332>. [AFH<sup>+</sup>18]
- [Accattoli:2022:MTR] Beniamino Accattoli, Ugo Dal Lago, and Gabriele Vanoni. Multi types and reasonable space. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):119:1–119:??, August 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547650>. [Ancona:2017:RDC]
- [Ancona:2017:RDC] Davide Ancona, Francesco Dagnino, and Elena Zucca. Reasoning on divergent computations with coaxioms. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):81:1–81:??, October 2017. CODEN ????. ISSN 2475-1421. [Alpernas:2018:SSC]
- [Alpernas:2018:SSC] Kalev Alpernas, Cormac Flanagan, Sadjad Fouladi, Leonid Ryzhyk, Mooly Sagiv, Thomas Schmitz, and Keith Winstein. Secure serverless computing using dynamic information flow control. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):118:1–118:26, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276488>. [Ahman:2018:RWF]
- [Ahman:2018:RWF] Danel Ahman, Cédric Fournet, Cătălin Hrițcu, Kenji Maillard, Aseem Rastogi, and Nikhil Swamy. Recalling a witness:

- foundations and applications of monotonic state. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL): 65:1–65:??, January 2018. CODEN ???? ISSN 2475-1421. [AGLK18]
- [AG20] Federico Aschieri and Francesco A. Genco. Par means parallel: multiplicative linear logic proofs as concurrent functional programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 18:1–18:28, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371086>. [Aschieri:2020:PMP]
- [AG22] Beniamino Accattoli and Giulio Guerrieri. The theory of call-by-value solvability. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):121:1–121:??, August 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547652>. [Accattoli:2022:TCV]
- [AGK23] Victor Arrial, Giulio Guerrieri, and Delia Kesner. Quantitative inhabitation for different Lambda calculi in a unifying framework. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):51:1–51:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571244>. [Arrial:2023:QID]
- [AGR<sup>+</sup>20] Elvira Albert, Shelly Grossman, Noam Rinetzkzy, Clara Rodríguez-Núñez, Albert Rubio, and Mooly Sagiv. Taming callbacks for smart contract modularity. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):209:1–209:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428277>. [Albert:2020:TCS]
- [AH18] Aws Albarghouthi and Justin Hsu. Synthesizing coupling proofs of differential privacy. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL): 58:1–58:??, January 2018. CODEN ???? ISSN 2475-1421. [Albarghouthi:2018:SCP]
- [AHLM20] Benedikt Ahrens, André Hirschowitz, Ambroise Lafont, and Marco Maggesi. Reduction monads and their signatures. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):31:1–31:29, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3236789>. [Accattoli:2018:TTS]
- [Ahrens:2020:RMT]

2020. URL <https://dl.acm.org/doi/abs/10.1145/3371099>.
- [AHM<sup>+</sup>17] Joshua S. Auerbach, Martin Hirzel, Louis Mandel, Avraham Shinnar, and Jérôme Siméon. Prototyping a query compiler using Coq (experience report). *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP): 9:1–9:??, September 2017. CODEN ???? ISSN 2475-1421.
- [Ahm18] Danel Ahman. Handling fibred algebraic effects. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL): 7:1–7:??, January 2018. CODEN ???? ISSN 2475-1421.
- [AJRG21] Nader Al Awar, Kush Jain, Christopher J. Rossbach, and Milos Gligoric. Programming and execution models for parallel bounded exhaustive testing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):166:1–166:28, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485543>.
- [AJSW17] Amal Ahmed, Dustin Jamner, Jeremy G. Siek, and Philip Wadler. Theorems for free for free: parametricity, with and without types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):39:1–39:??, September 2017. CODEN ???? ISSN 2475-1421.
- [AK20] Michael Arntzenius and Neel Krishnaswami. Seminaïve evaluation for a higher-order functional language. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 22:1–22:28, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371090>.
- [AKK<sup>+</sup>21] Shaull Almagor, Toghrul Karimov, Edon Kelmendi, Joël Ouaknine, and James Worrell. Deciding  $\omega$ -regular properties on linear recurrence sequences. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL): 48:1–48:24, January 2021. URL <https://dl.acm.org/doi/10.1145/3434329>.
- [AKL19] Timos Antonopoulos, Eric Koskinen, and Ton Chanh Le. Specification and inference of trace refinement relations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):178:1–178:30, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360604>.

**Auerbach:2017:PQC****Ahman:2018:HFA****AlAwar:2021:PEM****Ahmed:2017:TFF****Arntzenius:2020:SVE****Almagor:2021:DRP****Antonopoulos:2019:SIT**

- [AKL<sup>+</sup>23] **Antonopoulos:2023:AAR**  
 Timos Antonopoulos, Eric Koskinen, Ton Chanh Le, Ramana Nagasamudram, David A. Naumann, and Minh Ngo. An algebra of alignment for relational verification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):20:1–20:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571213>.
- [AM17] **Adams:2017:RGT**  
 Michael D. Adams and Matthew Might. Restricting grammars with tree automata. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):82:1–82:??, October 2017. CODEN ???? ISSN 2475-1421. [AMT17]
- [AMP<sup>+</sup>20] **Astrauskas:2020:HDP**  
 Vytautas Astrauskas, Christoph Matheja, Federico Poli, Peter Müller, and Alexander J. Summers. How do programmers use unsafe Rust? *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):136:1–136:27, November 2020. URL <https://dl.acm.org/doi/10.1145/3428204>. [AÖV18]
- [AMPS19] **Astrauskas:2019:LRT**  
 Vytautas Astrauskas, Peter Müller, Federico Poli, and Alexander J. Summers. Leveraging Rust types for modular specification and verification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):147:1–147:30, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360573>.
- Avanzini:2020:MCA**  
 Martin Avanzini, Georg Moser, and Michael Schaper. A modular cost analysis for probabilistic programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):172:1–172:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428240>.
- Adamsen:2017:PIR**  
 Christoffer Quist Adamsen, Anders Møller, and Frank Tip. Practical initialization race detection for JavaScript web applications. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):66:1–66:??, October 2017. CODEN ???? ISSN 2475-1421.
- Abel:2018:DCT**  
 Andreas Abel, Joakim Öhman, and Andrea Vezzosi. Decidability of conversion for type theory in type theory. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):23:1–23:??, January 2018. CODEN ???? ISSN 2475-1421.

- Abadi:2020:SDP**
- [AP20] Martín Abadi and Gordon D. Plotkin. A simple differentiable programming language. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 38:1–38:28, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371106>.
- Ahman:2021:AE**
- [AP21] Danel Ahman and Matija Pretnar. Asynchronous effects. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL): 24:1–24:28, January 2021. URL <https://dl.acm.org/doi/10.1145/3434305>.
- Amin:2018:CTI**
- [AR18] Nada Amin and Tiark Rompf. Collapsing towers of interpreters. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL): 52:1–52:??, January 2018. CODEN ???? ISSN 2475-1421.
- Astorga:2021:SCC**
- [ASD<sup>+</sup>21] Angello Astorga, Shambwaditya Saha, Ahmad Dinkins, Felicia Wang, P. Madhusudan, and Tao Xie. Synthesizing contracts correct modulo a test generator. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):104:1–104:27, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485481>.
- An:2020:AEB**
- [ASMS20] Shengwei An, Rishabh Singh, Sasa Misailovic, and Roopsha Samanta. Augmented example-based synthesis using relational perturbation properties. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 56:1–56:24, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371124>.
- Alur:2023:RTS**
- [ASW23] Rajeev Alur, Caleb Stanford, and Christopher Watson. A robust theory of series parallel graphs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL): 37:1–37:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571230>.
- Abel:2017:NES**
- [AVW17] Andreas Abel, Andrea Vezzosi, and Theo Winterhalter. Normalization by evaluation for sized dependent types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):33:1–33:??, September 2017. CODEN ???? ISSN 2475-1421.
- Arora:2021:PSE**
- [AWA21] Jatin Arora, Sam Westrick, and Umut A. Acar. Provably space-efficient parallel functional pro-

- gramming. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL): 18:1–18:33, January 2021. URL <https://dl.acm.org/doi/10.1145/3434299>.
- [AYB<sup>+</sup>22] Eric Atkinson, Charles Yuan, Guillaume Baudart, Louis Mandel, and Michael Carbin. Semi-symbolic inference for efficient streaming probabilistic programming. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):184:1–184:??, October 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563347>.
- [AZMT18] Saba Alimadadi, Di Zhong, Magnus Madsen, and Frank Tip. Finding broken promises in asynchronous JavaScript programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):162:1–162:26, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276532>.
- [AZMV23] Mosaad Al Thokair, Minjian Zhang, Umang Mathur, and Mahesh Viswanathan. Dynamic race detection with  $O(1)$  samples. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL): 45:1–45:??, January 2023. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571238>.
- [BAP20] Walter Bright, Andrei Alexandrescu, and Michael Parker. Origins of the D programming language. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(HOPL):73:1–73:38, June 2020. URL <https://dl.acm.org/doi/abs/10.1145/3386323>.
- [BAS<sup>+</sup>18] Oliver Bracevac, Nada Amin, Guido Salvaneschi, Sebastian Erdweg, Patrick Eugster, and Mira Mezini. Versatile event correlation with algebraic effects. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):67:1–67:31, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236762>.
- [BAY20] Shaked Brody, Uri Alon, and Eran Yahav. A structural model for contextual code changes. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):215:1–215:28, November 2020. URL <https://dl.acm.org/doi/10.1145/3428283>.
- [BBB<sup>+</sup>17] Philip A. Bernstein, Sebastian Burckhardt, Sergey Bykov, Natacha Crooks, Jose M. Bernstein:2017:GDA
- Atkinson:2022:SSI
- Bright:2020:ODP
- Bracevac:2018:VEC
- Alimadadi:2018:FBP
- Brody:2020:SMC
- AlThokair:2023:DRD

- Faleiro, Gabriel Kliot, Alok Kumbhare, Muntasir Raihan Rahman, Vivek Shah, Adriana Szekeres, and Jorgen Theilin. Geo-distribution of actor-based services. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1 (OOPSLA):107:1–107:??, October 2017. CODEN ???? ISSN 2475-1421.
- [BBBK17] Thibaut Balabonski, Pablo Barenbaum, Eduardo Bonelli, and Delia Kesner. Foundations of strong call by need. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1 (ICFP):20:1–20:??, September 2017. CODEN ???? ISSN 2475-1421.
- [BBKO22] **Balabonski:2017:FSC**  
Olivier Blanvillain, Jonathan Immanuel Brachthäuser, Maxime Kjaer, and Martin Odersky. Type-level programming with match types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):37:1–37:24, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498698>.
- [BBF<sup>+</sup>21] **Barriere:2021:FVS**  
Jean-Philippe Bernardy, Mathieu Boespflug, Ryan R. Newton, Simon Peyton Jones, and Arnaud Spiwack. Linear Haskell: practical linearity in a higher-order polymorphic language. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):5:1–5:??, January 2018. CODEN ???? ISSN 2475-1421.
- [BBG<sup>+</sup>20] **Barthe:2020:FVC**  
Timothy Bourke, Lélío Brun, and Marc Pouzet. Mechanized semantics and verified compilation for a dataflow synchronous language with reset. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):44:1–44:29, January 2020.
- [BBK20] **Bourke:2020:MSV**  
Aurèle Barrière, Sandrine Blazy, Olivier Flückiger, David Pichardie, and Jan Vitek. Formally verified speculation and deoptimization in a JIT compiler. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):46:1–46:26, January 2021. URL <https://dl.acm.org/doi/10.1145/3434327>.

- URL <https://dl.acm.org/doi/abs/10.1145/3371112>.
- Barriere:2023:FVN**
- [BBP23] Aurèle Barrière, Sandrine Blazy, and David Pichardie. Formally verified native code generation in an effectful JIT: Turning the CompCert back-end into a formally verified JIT compiler. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL): 9:1–9:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571202>.
- Byrd:2017:UAS**
- [BBRM17] William E. Byrd, Michael Balantyne, Gregory Rosenblatt, and Matthew Might. A unified approach to solving seven programming problems (functional pearl). *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP): 8:1–8:??, September 2017. CODEN ???? ISSN 2475-1421.
- Barrett:2017:VMW**
- [BBTK<sup>+</sup>17] Edd Barrett, Carl Friedrich Bolz-Tereick, Rebecca Killick, Sarah Mount, and Laurence Tratt. Virtual machine warmup blows hot and cold. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):52:1–52:??, October 2017. CODEN ???? ISSN 2475-1421.
- Bauman:2017:SGT**
- [BBTSTH17] Spenser Bauman, Carl Friedrich Bolz-Tereick, Jeremy Siek, and Sam Tobin-Hochstadt. Sound gradual typing: only mostly dead. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):54:1–54:??, October 2017. CODEN ???? ISSN 2475-1421.
- Barowy:2018:EAF**
- [BBZ18] Daniel W. Barowy, Emery D. Berger, and Benjamin Zorn. ExcelLint: automatically finding spreadsheet formula errors. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):148:1–148:26, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276518>.
- Burckhardt:2018:RCC**
- [BC18] Sebastian Burckhardt and Tim Coppieters. Reactive caching for composed services: polling at the speed of push. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):152:1–152:28, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276522>.
- Bartha:2021:OGS**
- [BCB21] Sándor Bartha, James Cheney, and Vaishak Belle. One down, 699 to go: or, synthesising compositional desugarings. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):122:1–122:29, October 2021. CODEN ???? ISSN

- 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485499>. [BCG<sup>+</sup>20]
- [BCC<sup>+</sup>18] Jeff Bezanson, Jiahao Chen, Benjamin Chung, Stefan Karpinski, Viral B. Shah, Jan Vitek, and Lionel Zoubritzky. Julia: dynamism and performance reconciled by design. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (OOPSLA):120:1–120:23, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276490>. [Bezanson:2018:JDP]
- [BCD22] Małgorzata Biernacka, Witold Charatonik, and Tomasz Drab. A simple and efficient implementation of strong call by need by an abstract machine. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):94:1–94:??, August 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3549822>. [Biernacka:2022:SEI]
- [BCDG22] Gilles Barthe, Raphaëlle Crubillé, Ugo Dal Lago, and Francesco Gavazzo. On Feller continuity and full abstraction. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):120:1–120:??, August 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547651>. [Barthe:2022:FCF]
- [Bui:2021:RET] Truc Lam Bui, Krishnendu Chatterjee, Tushar Gautam, Andreas Pavlogiannis, and Viktor Toman. The reads-from equivalence for the TSO and PSO memory models. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5 (OOPSLA):164:1–164:30, October 2021. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485541>. [Bui:2021:RET]
- [Belyakova:2020:WAJ] Julia Belyakova, Benjamin Chung, Jack Gelin, Jameson Nash, Ross Tate, and Jan Vitek. World age in Julia: optimizing method dispatch in the presence of eval. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):207:1–207:26, November 2020. URL <https://dl.acm.org/doi/10.1145/3428275>. [Belyakova:2020:WAJ]
- [Benzaken:2022:TCS] Véronique Benzaken, Évelyne Contejean, Mohammed Houssein Hachmaoui, Chantal Keller, Louis Mandel, Avraham Shinhar, and Jérôme Siméon. Translating canonical SQL to imperative code in Coq. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA1):83:1–83:27, April 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547651>. [Benzaken:2022:TCS]

- <https://dl.acm.org/doi/10.1145/3527327>.
- [BCK<sup>+</sup>21] Gilles Barthe, Rohit Chadha, Paul Krogmeier, A. Prasad Sistla, and Mahesh Viswanathan. Deciding accuracy of differential privacy schemes. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL): 8:1–8:30, January 2021. URL <https://dl.acm.org/doi/10.1145/3434289>.
- [BCRA18] William J. Bowman, Youyou Cong, Nick Rioux, and Amal Ahmed. Type-preserving CPS translation of  $\Sigma$  and  $\Pi$  types is not not possible. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL): 22:1–22:??, January 2018. CODEN ???? ISSN 2475-1421.
- [BDA20] Sean Bartell, Will Dietz, and Vikram S. Adve. Guided linking: dynamic linking without the costs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):145:1–145:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428213>.
- [BDCN20] Subarno Banerjee, David Devecsery, Peter M. Chen, and Satish Narayanasamy. Sound garbage collection for C using pointer provenance. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):176:1–176:28, November 2020. URL <https://dl.acm.org/doi/10.1145/3428244>.
- [BDG<sup>+</sup>22] Riccardo Bianchini, Francesco Dagnino, Paola Giannini, Elena Zucca, and Marco Servetto. Co-effects for sharing and mutation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):156:1–156:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563319>.
- [BDS23] Filippo Bonchi, Alessandro Di Giorgio, and Alessio Santamaria. Deconstructing the calculus of relations with tape diagrams. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL): 64:1–64:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571257>.
- [BDYG<sup>+</sup>21] Lars Birkedal, Thomas Dinsdale-Young, Armaël Guéneau, Guilhem Jaber, Kasper Svendsen, and Nikos Tzevelekos. Theorems for free from separation logic specifications. *Proceedings of the ACM on Programming Languages (PACMPL)*,

- 5(ICFP):81:1–81:29, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473586>. [Ber17]
- [BE19] Ranadeep Biswas and Constantin Enea. On the complexity of checking transactional consistency. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (OOPSLA):165:1–165:28, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360591>. ■
- [BEG<sup>+</sup>18] Gilles Barthe, Thomas Espitau, Benjamin Grégoire, Justin Hsu, and Pierre-Yves Strub. Proving expected sensitivity of probabilistic programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):57:1–57:??, January 2018. CODEN ???? ISSN 2475-1421. [BFV18]
- [BEM<sup>+</sup>21] Christian Bräm, Marco Eilers, Peter Müller, Robin Sierra, and Alexander J. Summers. Rich specifications for Ethereum smart contract verification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5 (OOPSLA):146:1–146:30, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485523>. [BG18]
- [Bernardy:2017:PGP] Jean-Philippe Bernardy. A pretty but not greedy printer (functional pearl). *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):6:1–6:??, September 2017. CODEN ???? ISSN 2475-1421.
- [Bagherzadeh:2020:ACB] Mehdi Bagherzadeh, Nicholas Fireman, Anas Shawesh, and Raffi Khatchadourian. Actor concurrency bugs: a comprehensive study on symptoms, root causes, API usages, and differences. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):214:1–214:32, November 2020. URL <https://dl.acm.org/doi/10.1145/3428282>. ■
- [Bielik:2018:RRL] Pavol Bielik, Marc Fischer, and Martin Vechev. Robust relational layout synthesis from examples for Android. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (OOPSLA):156:1–156:29, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276526>. ■
- [Boisseau:2018:WYN] Guillaume Boisseau and Jeremy Gibbons. What you needa know about Yoneda: profunctor optics and the Yoneda lemma (functional pearl). *Proceedings of the ACM on Program-*

- ming Languages (PACMPL)*, 2 (ICFP):84:1–84:27, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236779>.
- [BGG<sup>+</sup>20] **Bruni:2020:AEP** Roberto Bruni, Roberto Giacobazzi, Roberta Gori, Isabel Garcia-Contreras, and Dusko Pavlovic. Abstract extensionality: on the properties of incomplete abstract interpretations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):28:1–28:28, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371096>.
- [BGC18] **Boston:2018:LVA** Brett Boston, Zoe Gong, and Michael Carbin. Leto: verifying application-specific hardware fault tolerance with programmable execution models. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):163:1–163:30, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276533>.
- [BGC20] **Bembenek:2020:FDS** Aaron Bembenek, Michael Greenberg, and Stephen Chong. Formulog: Datalog for SMT-based static analysis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):141:1–141:31, November 2020. URL <https://dl.acm.org/doi/10.1145/3428209>.
- [BGC23] **Bembenek:2023:SAS** Aaron Bembenek, Michael Greenberg, and Stephen Chong. From SMT to ASP: Solver-based approaches to solving Datalog synthesis-as-rule-selection problems. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):7:1–7:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571200>.
- [BGHT22] **Bao:2022:SLN** Jialu Bao, Marco Gaboardi, Justin Hsu, and Joseph Tsarotti. A separation logic for negative dependence. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):57:1–57:29, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498719>.
- [BGJ<sup>+</sup>21] **Burckhardt:2021:DFS** Sebastian Burckhardt, Chris Gillum, David Justo, Konstantinos Kallas, Connor McMahon, and Christopher S. Meiklejohn. Durable functions: semantics for stateful serverless. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):133:1–133:27, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485510>.

- Batz:2022:WPP**
- [BGK<sup>+</sup>22] Kevin Batz, Adrian Gallus, Benjamin Lucien Kaminski, Joost-Pieter Katoen, and Tobias Winkler. Weighted programming: a programming paradigm for specifying mathematical models. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):66:1–66:30, April 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527310>.
- Bahr:2019:SRF**
- [BGM19] Patrick Bahr, Christian Uldal Graulund, and Rasmus Ejlers Møgelberg. Simply RaTT: a fitch-style modal calculus for reactive programming without space leaks. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):109:1–109:27, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341713>.
- Bahr:2021:DFL**
- [BGM21] Patrick Bahr, Christian Uldal Graulund, and Rasmus Ejlers Møgelberg. Diamonds are not forever: liveness in reactive programming with guarded recursion. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):2:1–2:28, January 2021. URL <https://dl.acm.org/doi/10.1145/3434283>.
- Baumann:2023:CBV**
- [BGM<sup>+</sup>23] Pascal Baumann, Moses Ganardi, Rupak Majumdar, Ramanathan S. Thinniyam, and Georg Zetsche. Context-bounded verification of context-free specifications. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):73:1–73:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571266>.
- Beckett:2020:AID**
- [BGMW20] Ryan Beckett, Aarti Gupta, Ratul Mahajan, and David Walker. Abstract interpretation of distributed network control planes. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):42:1–42:27, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371110>.
- Blackshear:2018:RCS**
- [BGOS18] Sam Blackshear, Nikos Goriannis, Peter W. O’Hearn, and Ilya Sergey. RacerD: compositional static race detection. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):144:1–144:28, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276514>.
- Blanchette:2019:BBN**
- [BGPT19] Jasmin Christian Blanchette, Lorenzo Gheri, Andrei Popescu,

- and Dmitriy Traytel. Bindings as bounded natural functors. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL): 22:1–22:34, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290335>.
- Boruch-Gruszecki:2022:CDT**
- [BGWXP22] Aleksander Boruch-Gruszecki, Radosław Waśko, Yichen Xu, and Lionel Parreaux. A case for DOT: theoretical foundations for objects with pattern matching and GADT-style reasoning. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):179:1–179:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563342>.
- Bahr:2022:MCC**
- [BH22] Patrick Bahr and Graham Hutton. Monadic compiler calculation (functional pearl). *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):93:1–93:??, August 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547624>.
- Barthe:2020:PSL**
- [BHL20] Gilles Barthe, Justin Hsu, and Kevin Liao. A probabilistic separation logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 55:1–55:30, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371123>.
- Bonchi:2019:DAL**
- [BHP<sup>+</sup>19] Filippo Bonchi, Joshua Holland, Robin Piedeleu, Paweł Sobociński, and Fabio Zanasi. Diagrammatic algebra: from linear to concurrent systems. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):25:1–25:28, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290338>.
- Barthe:2020:RPQ**
- [BHY<sup>+</sup>20] Gilles Barthe, Justin Hsu, Mingsheng Ying, Nengkun Yu, and Li Zhou. Relational proofs for quantum programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 21:1–21:29, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371089>.
- Bierhoff:2022:WNW**
- [Bie22] Kevin Bierhoff. Wildcards need witness protection. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):138:1–138:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563301>.
- Bavishi:2022:NRL**
- [BJC<sup>+</sup>22] Rohan Bavishi, Harshit Joshi, José Cambroneró, Anna Fariba, Sumit Gulwani, Vu Le, Ivan Radiček, and Ashish

- Tiwari. Neurosymbolic repair for low-code formula languages. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):164:1–164:??, October 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563327>. **Batz:2023:CAE**
- [BJP23] Shraddha Barke, Michael B. James, and Nadia Polikarpova. Grounded copilot: How programmers interact with code-generating models. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1):78:1–78:??, April 2023. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586030>. **Barke:2023:GCH**
- [BJSO20] David Binder, Julian Jabs, Ingo Skupin, and Klaus Ostermann. Decomposition diversity with symmetric data and codata. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):30:1–30:28, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371098>. **Binder:2020:DDS**
- [BKF20] Michael Ballantyne, Alexis King, and Matthias Felleisen. Macros for domain-specific languages. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):229:1–229:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428297>. **Batz:2023:CAE**
- [BKK<sup>+</sup>23] Kevin Batz, Benjamin Lucien Kaminski, Joost-Pieter Katoen, Christoph Matheja, and Lena Verscht. A calculus for amortized expected runtimes. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):67:1–67:??, January 2023. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571260>. **Batz:2021:RCV**
- [BKKM21] Kevin Batz, Benjamin Lucien Kaminski, Joost-Pieter Katoen, and Christoph Matheja. Relatively complete verification of probabilistic programs: an expressive language for expectation-based reasoning. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):39:1–39:30, January 2021. URL <https://dl.acm.org/doi/10.1145/3434320>. **Baldan:2019:FGC**
- [BKMMP19] Paolo Baldan, Barbara König, Christina Mika-Michalski, and Tommaso Padoan. Fix-point games on continuous lattices. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):26:1–26:29, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290339>. **Baldan:2019:FGC**
- [BKMMP19] Paolo Baldan, Barbara König, Christina Mika-Michalski, and Tommaso Padoan. Fix-point games on continuous lattices. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):26:1–26:29, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290339>. **Baldan:2019:FGC**

- Bastian:2019:RFD**
- [BKN19] Théophile Bastian, Stephen Kell, and Francesco Zappa Nardelli. Reliable and fast DWARF-based stack unwinding. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):146:1–146:24, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360572>.
- Bao:2018:AMC**
- [BKPS18] Wenlei Bao, Sriram Krishnamoorthy, Louis-Noel Pouchet, and P. Sadayappan. Analytical modeling of cache behavior for affine programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):32:1–32:??, January 2018. CODEN ???? ISSN 2475-1421.
- Biswas:2021:PME**
- [BKV<sup>+</sup>21] Ranadeep Biswas, Diptanshu Kakwani, Jyothi Vedurada, Constantin Enea, and Akash Lal. MonkeyDB: effectively testing correctness under weak isolation levels. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):132:1–132:27, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485546>.
- Blaudeau:2022:CFS**
- [BL22] Clément Blaudeau and Fengyun Liu. A conceptual framework for safe object initialization: a principled and mechanized soundness proof of the Celsius model. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):151:1–151:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563314>.
- Bavishi:2019:ANB**
- [BLF<sup>+</sup>19] Rohan Bavishi, Caroline Lemieux, Roy Fox, Koushik Sen, and Ion Stoica. AutoPandas: neural-backed generators for program synthesis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):168:1–168:27, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360594>.
- Bavishi:2021:PGP**
- [BLSS21] Rohan Bavishi, Caroline Lemieux, Koushik Sen, and Ion Stoica. Gauss: program synthesis by reasoning over graphs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):134:1–134:29, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485511>.
- Barbarossa:2020:TSS**
- [BM20] Davide Barbarossa and Giulio Manzonetto. Taylor subsumes Scott, Berry, Kahn and Plotkin. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):1:1–1:23, January

2020. URL <https://dl.acm.org/doi/abs/10.1145/3371069>. [BNS20]
- [BMP20] Aloïs Brunel, Damiano Mazza, and Michele Pagani. Backpropagation in the simply typed lambda-calculus with linear negation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 64:1–64:27, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371132>. [BOR18]
- [BMTZ21] Pascal Baumann, Rupak Majumdar, Ramanathan S. Thinniyam, and Georg Zetsche. Context-bounded verification of liveness properties for multi-threaded shared-memory programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL): 44:1–44:31, January 2021. URL <https://dl.acm.org/doi/10.1145/3434325>. [BOW+23]
- [BMTZ22] Pascal Baumann, Rupak Majumdar, Ramanathan S. Thinniyam, and Georg Zetsche. Context-bounded verification of thread pools. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):17:1–17:28, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498678>. [BP17]
- [Bansal:2020:SCP] Suguman Bansal, Kedar S. Namjoshi, and Yaniv Sa’ar. Synthesis of coordination programs from linear temporal specifications. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 54:1–54:27, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371122>.
- [Burn:2018:HOC] Toby Cathcart Burn, C.-H. Luke Ong, and Steven J. Ramsay. Higher-order constrained horn clauses for verification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL): 11:1–11:??, January 2018. CODEN ???? ISSN 2475-1421.
- [Bowers:2023:TSL] Matthew Bowers, Theo X. Olausson, Lionel Wong, Gabriel Grand, Joshua B. Tenenbaum, Kevin Ellis, and Armando Solar-Lezama. Top-down synthesis for library learning. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL): 41:1–41:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571234>.
- [Balzer:2017:MSS] Stephanie Balzer and Frank Pfennig. Manifest sharing with session types. *Proceed-*

- ings of the ACM on Programming Languages (PACMPL)*, 1 (ICFP):37:1–37:??, September 2017. CODEN ???? ISSN 2475-1421.
- Brown:2018:JOP**
- [BP18] Matt Brown and Jens Palsberg. Jones-optimal partial evaluation by specialization-safe normalization. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):14:1–14:??, January 2018. CODEN ???? ISSN 2475-1421.
- Bender:2019:FJC**
- [BP19] John Bender and Jens Palsberg. A formalization of Java’s concurrent access modes. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (OOPSLA):142:1–142:28, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360568>. [BPPS18]
- Benedikt:2021:GCT**
- [BP21] Michael Benedikt and Pierre Pradic. Generating collection transformations from proofs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):14:1–14:28, January 2021. URL <https://dl.acm.org/doi/10.1145/3434295>.
- Brown:2021:FUM**
- [BPB<sup>+</sup>21] Michael D. Brown, Matthew Pruet, Robert Bigelow, Girish Mururu, and Santosh Pande. Not so fast: understanding and mitigating negative impacts of compiler optimizations on code reuse gadget sets. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5 (OOPSLA):154:1–154:30, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485531>.
- Barke:2020:JTL**
- [BPP20] Shraddha Barke, Hila Peleg, and Nadia Polikarpova. Just-in-time learning for bottom-up enumerative synthesis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):227:1–227:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428295>.
- Biernacki:2018:HCR**
- [BPPS18] Dariusz Biernacki, Maciej Piróg, Piotr Polesiuk, and Filip Sieczkowski. Handle with care: relational interpretation of algebraic effects and handlers. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):8:1–8:??, January 2018. CODEN ???? ISSN 2475-1421.
- Biernacki:2019:AAE**
- [BPPS19] Dariusz Biernacki, Maciej Piróg, Piotr Polesiuk, and Filip Sieczkowski. Abstracting algebraic effects. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):6:1–6:28, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290319>.

- [BPPS20] **Biernacki:2020:BDL**  
 Dariusz Biernacki, Maciej Piróg, Piotr Polesiuk, and Filip Sieczkowski. Binders by day, labels by night: effect instances via lexically scoped handlers. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 48:1–48:29, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371116>.
- [BRS18] **Bour:2018:MLS**  
 Frédéric Bour, Thomas Refis, and Gabriel Scherer. Merlin: a language server for OCaml (experience report). *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):103:1–103:15, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236798>.
- [BS17] **Breitner:2017:LSS**  
 Joachim Breitner and Chris Smith. Lock-step simulation is child’s play (experience report). *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP): 3:1–3:??, September 2017. CODEN ???? ISSN 2475-1421.
- [BS21] **Barbar:2021:CPS**  
 Mohamad Barbar and Yulei Sui. Compacting points-to sets through object clustering. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):159:1–159:27, October 2021. CODEN
- ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485547>.
- [BSLBG22] **Brachthäuser:2022:ECB**  
 Jonathan Immanuel Brachthäuser, Philipp Schuster, Edward Lee, and Aleksander Boruch-Gruszecki. Effects, capabilities, and boxes: from scope-based reasoning to type-based reasoning and back. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):76:1–76:30, April 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527320>.
- [BSO18] **Brachthäuser:2018:EHM**  
 Jonathan Immanuel Brachthäuser, Philipp Schuster, and Klaus Ostermann. Effect handlers for the masses. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):111:1–111:27, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276481>.
- [BSO20] **Brachthäuser:2020:ECE**  
 Jonathan Immanuel Brachthäuser, Philipp Schuster, and Klaus Ostermann. Effects as capabilities: effect handlers and lightweight effect polymorphism. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):126:1–126:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428194>.

- [BSPC19] **Bader:2019:GLF** Johannes Bader, Andrew Scott, Michael Pradel, and Satish Chandra. Getafix: learning to fix bugs automatically. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (OOPSLA):159:1–159:27, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360585>. [BVG19]
- [BSRC19] **Barik:2019:OSP** Rajkishore Barik, Manu Sridharan, Murali Krishna Ramanathan, and Milind Chabbi. Optimization of swift protocols. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):164:1–164:27, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360590>. [BvGKJ17]
- [BSZL<sup>+</sup>18] **Breitner:2018:RSV** Joachim Breitner, Antal Spector-Zabusky, Yao Li, Christine Rizkallah, John Wiegley, and Stephanie Weirich. Ready, set, verify! applying hs-to-coq to real-world Haskell code (experience report). *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (ICFP):89:1–89:16, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236784>. [BWB<sup>+</sup>21]
- [BT18] **Bornholt:2018:FCE** James Bornholt and Emina Torlak. Finding code that explodes under symbolic evaluation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (OOPSLA):149:1–149:26, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276519>. [Benavides:2019:DDP]
- Benavides:2019:DDP** Zachary Benavides, Keval Vora, and Rajiv Gupta. DProf: distributed profiler with strong guarantees. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):156:1–156:24, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360582>.
- Bakst:2017:VDP** Alexander Bakst, Klaus v. Gleisenthall, Rami Gökhan Kici, and Ranjit Jhala. Verifying distributed programs via canonical sequentialization. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1 (OOPSLA):110:1–110:??, October 2017. CODEN ????. ISSN 2475-1421.
- Bao:2021:RTT** Yuyan Bao, Guannan Wei, Oliver Bracevac, Yuxuan Jiang, Qiyang He, and Tiark Rompf. Reachability types: tracking aliasing and separation in higher-order functional programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):139:1–139:32, October 2021. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485516>.

- [BXMS19] **Bottu:2019:CTC**  
Gert-Jan Bottu, Ningning Xie, Koar Marntirosian, and Tom Schrijvers. Coherence of type class resolution. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (ICFP):91:1–91:28, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341695>.
- [BZKT21] **Brotzman:2021:PSD**  
Robert Brotzman, Danfeng Zhang, Mahmut Taylan Kandemir, and Gang Tan. SpecSafe: detecting cache side channels in a speculative world. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5 (OOPSLA):129:1–129:28, October 2021. CODEN OOPSLA ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485506>.
- [BZSL19] **Bastani:2019:PVF**  
Osbert Bastani, Xin Zhang, and Armando Solar-Lezama. Probabilistic verification of fairness properties via concentration. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):118:1–118:27, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360544>.
- [CA18a] **Cockx:2018:EDC**  
Jesper Cockx and Andreas Abel. Elaborating dependent (co)pattern matching. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (ICFP):75:1–75:30, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236770>.
- [CA18b] **Cong:2018:HDC**  
Youyou Cong and Kenichi Asai. Handling delimited continuations with dependent types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (ICFP):69:1–69:31, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236764>.
- [CA22] **Chou:2022:CDS**  
Stephen Chou and Saman Amarasinghe. Compilation of dynamic sparse tensor algebra. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):175:1–175:??, October 2022. CODEN OOPSLA ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563338>.
- [CAL18] **Cohen:2018:OOR**  
Nachshon Cohen, David T. Aksun, and James R. Larus. Object-oriented recovery for non-volatile memory. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (OOPSLA):153:1–153:22, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276523>.
- [CAMS20] **Coblentz:2020:CAT**  
Michael Coblentz, Jonathan Aldrich, Brad A. Myers, and Joshua Sunshine. Can advanced type systems be usable? An empirical study of

- ownership, assets, and type-state in Obsidian. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):132:1–132:28, November 2020. URL <https://dl.acm.org/doi/10.1145/3428200>.
- [CB17] Sarah Chasins and Rastislav Bodik. Skip blocks: reusing execution history to accelerate web scripts. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1 (OOPSLA):51:1–51:??, October 2017. CODEN ???? ISSN 2475-1421.
- [CB18] Kartik Chandra and Rastislav Bodik. Bonsai: synthesis-based reasoning for type systems. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):62:1–62:??, January 2018. CODEN ???? ISSN 2475-1421.
- [CBA17] Guilherme Cavalcanti, Paulo Borba, and Paola Accioly. Evaluating and improving semistructured merge. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1 (OOPSLA):59:1–59:??, October 2017. CODEN ???? ISSN 2475-1421.
- [CBTB20] Stephen Chang, Michael Balantyne, Milo Turner, and William J. Bowman. Dependent type systems as macros. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):3:1–3:29, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371071>.
- [CC20] John Peter Campora and Sheng Chen. Taming type annotations in gradual typing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):191:1–191:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428259>.
- [CC22] Basile Clément and Albert Cohen. End-to-end translation validation for the Halide language. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):84:1–84:30, April 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527328>.
- [CC23] Simon Castellan and Pierre Clairambault. The geometry of causality: Multi-token geometry of interaction and its causal unfolding. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):24:1–24:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL
- Chasins:2017:SBR**
- Campora:2020:TTA**
- Chandra:2018:BSB**
- Clement:2022:EET**
- Cavalcanti:2017:EIS**
- Castellan:2023:GCM**
- Chang:2020:DTS**

<https://dl.acm.org/doi/10.1145/3571217>.

**Campora:2018:MGT**

- [CCEW18] John Peter Campora, Sheng Chen, Martin Erwig, and Eric Walkingshaw. Migrating gradual types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL): 15:1–15:??, January 2018. CODEN ???? ISSN 2475-1421.

**Chen:2018:WDA**

- [CCH<sup>+</sup>18] Taolue Chen, Yan Chen, Matthew Hague, Anthony W. Lin, and Zhilin Wu. What is decidable about string constraints with the ReplaceAll function. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL): 3:1–3:??, January 2018. CODEN ???? ISSN 2475-1421.

**Chalupa:2018:DCD**

- [CCP<sup>+</sup>18a] Marek Chalupa, Krishnendu Chatterjee, Andreas Pavlogiannis, Nishant Sinha, and Kapil Vaidya. Data-centric dynamic partial order reduction. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL): 31:1–31:??, January 2018. CODEN ???? ISSN 2475-1421.

**Chatterjee:2018:ODR**

- [CCP18b] Krishnendu Chatterjee, Bhavya Choudhary, and Andreas Pavlogiannis. Optimal Dyck reachability for data-dependence and alias analysis. *Proceedings of*

*the ACM on Programming Languages (PACMPL)*, 2(POPL): 30:1–30:??, January 2018. CODEN ???? ISSN 2475-1421.

**Campora:2018:CCH**

- [CCW18] John Peter Campora, Sheng Chen, and Eric Walkingshaw. Casts and costs: harmonizing safety and performance in gradual typing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):98:1–98:30, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236793>.

**Christiansen:2019:DTH**

- [CDD<sup>+</sup>19] David Thrane Christiansen, Iavor S. Diatchki, Robert Dockins, Joe Hendrix, and Tristan Ravitch. Dependently typed Haskell in industry (experience report). *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):100:1–100:16, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341704>.

**Campion:2022:PCA**

- [CDG22] Marco Campion, Mila Dalla Preda, and Roberto Giacobazzi. Partial (In)Completeness in abstract interpretation: limiting the imprecision in program analysis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL): 59:1–59:31, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498721>.

- Canou:2017:SFP**
- [CDH17] Benjamin Canou, Roberto Di Cosmo, and Grégoire Henry. Scaling up functional programming education: under the hood of the OCaml MOOC. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP): 4:1–4:??, September 2017. CODEN ????? ISSN 2475-1421.
- Clairambault:2020:FAQ**
- [CdV20] Pierre Clairambault and Marc de Visme. Full abstraction for the quantum lambda-calculus. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 63:1–63:28, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371131>.
- Choudhury:2021:GDT**
- [CEEW21] Pritam Choudhury, Harley Eades III, Richard A. Eisenberg, and Stephanie Weirich. A graded dependent type system with a usage-aware semantics. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL): 50:1–50:32, January 2021. URL <https://dl.acm.org/doi/10.1145/3434331>.
- Clebsch:2017:OGT**
- [CFD<sup>+</sup>17] Sylvan Clebsch, Juliana Franco, Sophia Drossopoulou, Albert Mingkun Yang, Tobias Wrigstad, and Jan Vitek. Orca: GC and type system co-design for actor languages. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):72:1–72:??, October 2017. CODEN ????? ISSN 2475-1421.
- Chen:2022:VDM**
- [CFKP22] Adam Chen, Parisa Fatholoumi, Eric Koskinen, and Jared Pincus. Veracity: declarative multicore programming with commutativity. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):186:1–186:??, October 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563349>.
- Cohen:2017:ELN**
- [CFL17] Nachshon Cohen, Michal Friedman, and James R. Larus. Efficient logging in non-volatile memory by exploiting coherency protocols. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):67:1–67:??, October 2017. CODEN ????? ISSN 2475-1421.
- Chen:2022:SSC**
- [CFLH<sup>+</sup>22] Taolue Chen, Alejandro Flores-Lamas, Matthew Hague, Zhilei Han, Denghang Hu, Shuanglong Kan, Anthony W. Lin, Philipp Rümmer, and Zhilin Wu. Solving string constraints with regex-dependent functions through transducers with priorities and variables. *Proceedings of the ACM on Program-*

- ming Languages (PACMPL)*, 6(POPL):45:1–45:31, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498707>.
- [CG21] **Cronburg:2021:PPT** [CGM18] Karl Cronburg and Samuel Z. Guyer. Permchecker: a toolchain for debugging memory managers with typesate. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):149:1–149:28, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485526>.
- [CGL22] **Chaliasos:2022:SIA** [CH19] Stefanos Chaliasos, Arthur Gervais, and Benjamin Livshits. A study of inline assembly in Solidity smart contracts. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):165:1–165:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563328>.
- [CGL+23] **Cambronero:2023:FSP** [Cha20a] José Cambronero, Sumit Gulwani, Vu Le, Daniel Perelman, Arjun Radhakrishna, Clint Simon, and Ashish Tiwari. Flash-Fill++: Scaling programming by example by cutting to the chase. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):33:1–33:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571226>.
- [CGM18] **Clairambault:2018:LHO** Pierre Clairambault, Charles Grellois, and Andrzej S. Murawski. Linearity in higher-order recursion schemes. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):39:1–39:??, January 2018. CODEN ???? ISSN 2475-1421.
- [CH19] **Cavallo:2019:HIT** Evan Cavallo and Robert Harper. Higher inductive types in cubical computational type theory. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):1:1–1:27, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290314>.
- [Cha20a] **Chambers:2020:RDS** John M. Chambers. S, R, and data science. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(HOPL):84:1–84:17, June 2020. URL <https://dl.acm.org/doi/abs/10.1145/3386334>.
- [Cha20b] **Chargueraud:2020:SLS** Arthur Charguéraud. Separation logic for sequential programs (functional pearl). *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):116:1–116:34, August

2020. URL <https://dl.acm.org/doi/10.1145/3408998>.
- Chappe:2023:CTR**
- [CHH<sup>+</sup>23] Nicolas Chappe, Paul He, Ludovic Henrio, Yannick Zakowski, and Steve Zdancewic. Choice trees: Representing nondeterministic, recursive, and impure programs in Coq. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL): 61:1–61:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571254>.
- Castro:2019:DPU**
- [CHJ<sup>+</sup>19] David Castro, Raymond Hu, Sung-Shik Jongmans, Nicholas Ng, and Nobuko Yoshida. Distributed programming using role-parametric session types in Go: statically-typed endpoint APIs for dynamically-instantiated communication structures. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL): 29:1–29:30, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290342>.
- Chlipala:2021:SBB**
- [Chl21] Adam Chlipala. Skipping the binder bureaucracy with mixed embeddings in a semantics course (functional pearl). *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP): 94:1–94:28, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473599>.
- Choudhury:2022:MCA**
- [Cho22] Pritam Choudhury. Monadic and comonadic aspects of dependency analysis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):172:1–172:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563335>.
- Cosman:2017:LRT**
- [CJ17] Benjamin Cosman and Ranjit Jhala. Local refinement typing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP): 26:1–26:??, September 2017. CODEN ???? ISSN 2475-1421.
- Capriotti:2018:UHC**
- [CK18] Paolo Capriotti and Nicolai Kraus. Univalent higher categories via complete Semi-Segal types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL): 44:1–44:??, January 2018. CODEN ???? ISSN 2475-1421.
- Choudhury:2020:RPC**
- [CK20] Vikraman Choudhury and Neel Krishnaswami. Recovering purity with comonads and capabilities. *Proceedings of the ACM on Programming Languages*

- (*PACMPL*), 4(ICFP):111:1–111:28, August 2020. URL <https://dl.acm.org/doi/10.1145/3408993>.
- [CKA18] Stephen Chou, Fredrik Kjolstad, and Saman Amarasinghe. Format abstraction for sparse tensor algebra compilers. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):123:1–123:30, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276493>. ■
- [CKN<sup>+</sup>23] David Cao, Rose Kunkel, Chandrakana Nandi, Max Willsey, Zachary Tatlock, and Nadia Polikarpova. babble: Learning better abstractions with E-graphs and anti-unification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):14:1–14:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571207>. ■
- [CKP22] Khushboo Chitre, Piyus Kedia, and Rahul Purandare. The road not taken: exploring alias analysis based optimizations missed by the compiler. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):153:1–153:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563316>. ■
- [CKS22] **Chou:2018:FAS** Vikraman Choudhury, Jacek Karwowski, and Amr Sabry. Symmetries in reversible programming: from symmetric rig groupoids to reversible programming languages. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):6:1–6:32, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498667>. ■
- [CL17] **Cao:2023:BLB** Stephen Chang, Alex Knauth, and Emina Torlak. Symbolic types for lenient symbolic execution. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):40:1–40:??, January 2018. CODEN ???? ISSN 2475-1421. ■
- [CL21] **Chang:2018:STL** Giuseppe Castagna and Victor Lanvin. Gradual typing with union and intersection types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):41:1–41:??, September 2017. CODEN ???? ISSN 2475-1421. ■
- [CKT18] **Castagna:2017:GTU** Nathanaël Courant and Xavier Leroy. Verified code generation for the polyhedral model. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):153:1–153:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571207>. ■
- [CL17] **Chitre:2022:RTE**
- [CL21] **Courant:2021:VCG**

- ACM on Programming Languages (PACMPL)*, 5(POPL): 40:1–40:24, January 2021. URL <https://dl.acm.org/doi/10.1145/3434321>.
- [CLD20] Joseph W. Cutler, Daniel R. Licata, and Norman Danner. Denotational recurrence extraction for amortized analysis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP): 97:1–97:29, August 2020. URL <https://dl.acm.org/doi/10.1145/3408979>.
- [CLNL22] Giuseppe Castagna, Mickaël Laurent, Kim Nguy~ên, and Matthew Lutze. On type-cases, union elimination, and occurrence typing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):13:1–13:31, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498674>.
- [CLO<sup>+</sup>23] Zilin Chen, Ambroise Lafont, Liam OConnor, Gabriele Keller, Craig McLaughlin, Vincent Jackson, and Christine Rizkallah. Dargent: a silver bullet for verified data layout refinement. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):47:1–47:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571240>.
- [CLPS19] Giuseppe Castagna, Victor Lanvin, Tommaso Petrucciani, and Jeremy G. Siek. Gradual typing: a new perspective. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL): 16:1–16:32, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290329>.
- [CMcS23] David Chiang, Colin McDonald, and Chung chieh Shan. Exact recursive probabilistic programming. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1):98:1–98:??, April 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586050>.
- [CMP20] Martin Clochard, Claude Marché, and Andrei Paskevich. Deductive verification with ghost monitors. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 2:1–2:26, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371070>.
- [CMS22] Dmitry Chistikov, Rupak Majumdar, and Philipp Schep- per. Subcubic certificates for

- CFL reachability. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):41:1–41:29, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498702>. [COER19]
- Chowdhary:2022:FSE**
- [CN22] Sangeeta Chowdhary and Santosh Nagarakatte. Fast shadow execution for debugging numerical errors using error free transformations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):190:1–190:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563353>.
- Cox:2020:OOC**
- [CNH20] Brad J. Cox, Steve Naroff, and Hansen Hsu. The origins of Objective-C at PPI/Stepstone and its evolution at NeXT. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(HOPL):82:1–82:74, June 2020. URL <https://dl.acm.org/doi/abs/10.1145/3386332>.
- Celik:2019:DIA**
- [CNRG19] Ahmet Celik, Pengyu Nie, Christopher J. Rossbach, and Milos Gligoric. Design, implementation, and application of GPU-based Java bytecode interpreters. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):177:1–177:28, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360603>. [Cong:2019:CCW]
- Youyou Cong, Leo Oswald, Grégory M. Essertel, and Tiark Rompf. Compiling with continuations, or without? Whatever. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):79:1–79:28, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341643>.
- Cohen:2018:EDS**
- [Coh18] Nachshon Cohen. Every data structure deserves lock-free memory reclamation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):143:1–143:24, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276513>. [Chae:2017:AGF]
- Kwonsoo Chae, Hakjoo Oh, Kihong Heo, and Hongseok Yang. Automatically generating features for learning program analysis heuristics for C-like languages. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):101:1–101:??, October 2017. CODEN ???? ISSN 2475-1421. [COHY17]
- Ciccone:2022:FTB**
- [CP22] Luca Ciccone and Luca Padovani. Fair termination of binary sessions. *Proceedings of the*

- ACM on Programming Languages (PACMPL)*, 6(POPL): 5:1–5:30, January 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498666>. [CPY20]
- Chen:2022:TDS**
- [CPB<sup>+</sup>22] Qiaochu Chen, Shankara Pailoor, Celeste Barnaby, Abby Criswell, Chenglong Wang, Greg Durrett, and Işil Dillig. Type-directed synthesis of visualizations from natural language queries. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):144:1–144:??, October 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563307>. [CR19]
- Celik:2017:BET**
- [CPKG17] Ahmet Celik, Sreepathi Pai, Sarfraz Khurshid, and Milos Gligoric. Bounded exhaustive test-input generation on GPUs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):94:1–94:??, October 2017. CODEN ????? ISSN 2475-1421. [CR20]
- Chatterjee:2019:VCD**
- [CPT19] Krishnendu Chatterjee, Andreas Pavlogiannis, and Viktor Toman. Value-centric dynamic partial order reduction. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):124:1–124:29, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360550>. [Castro-Perez:2020:CCA]
- Castro-Perez:2020:CCA**
- David Castro-Perez and Nobuko Yoshida. CAMP: cost-aware multiparty session protocols. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):155:1–155:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428223>.
- Cambronero:2019:AAS**
- José P. Cambronero and Martin C. Rinard. AL: auto-generating supervised learning programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):175:1–175:28, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360601>. [Chen:2020:GAD]
- Chen:2020:GAD**
- Xiaohong Chen and Grigore Rosu. A general approach to define binders using matching logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):88:1–88:32, August 2020. URL <https://dl.acm.org/doi/10.1145/3408970>.
- Crary:2019:FAM**
- [Cra19] Karl Crary. Fully abstract module compilation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):10:1–10:29, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290323>.

**Clune:2020:PEA**

- [CRMA20] Joshua Clune, Vijay Ramamurthy, Ruben Martins, and Umut A. Acar. Program equivalence for assisted grading of functional programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):171:1–171:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428239>.

**Chen:2021:CIC**

- [CS21] Chao-Hong Chen and Amr Sabry. A computational interpretation of compact closed categories: reversible programming with negative and fractional types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):9:1–9:29, January 2021. URL <https://dl.acm.org/doi/10.1145/3434290>.

**Chaliasos:2021:WTP**

- [CSD<sup>+</sup>21] Stefanos Chaliasos, Thodoris Sotiropoulos, Georgios-Petros Drosos, Charalambos Mitropoulos, Dimitris Mitropoulos, and Diomidis Spinellis. Well-typed programs can go wrong: a study of typing-related bugs in JVM compilers. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5 (OOPSLA):123:1–123:30, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485500>.

**Cogumbreiro:2017:DAP**

- [CSM<sup>+</sup>17] Tiago Cogumbreiro, Rishi Surendran, Francisco Martins, Vivek Sarkar, Vasco T. Vasconcelos, and Max Grossman. Deadlock avoidance in parallel programs with futures: why parallel tasks should not wait for strangers. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1 (OOPSLA):103:1–103:??, October 2017. CODEN ???? ISSN 2475-1421.

**Caires:2019:RKT**

- [CT19] Luís Caires and Bernardo Toninho. Refinement kinds: type-safe programming with practical type-level computation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):131:1–131:30, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360557>.

**Chen:2020:TUP**

- [CTR<sup>+</sup>20] Xiaohong Chen, Minh-Thai Trinh, Nishant Rodrigues, Lucas Peña, and Grigore Rosu. Towards a unified proof framework for automated fixpoint reasoning using matching logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):161:1–161:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428229>.

- Cockx:2021:TRT**
- [CTW21] Jesper Cockx, Nicolas Tabareau, and Théo Winterhalter. The taming of the rew: a type theory with computational assumptions. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):60:1–60:29, January 2021. URL <https://dl.acm.org/doi/10.1145/3434341>.
- Chaudhuri:2017:FPT**
- [CVG<sup>+</sup>17] Avik Chaudhuri, Panagiotis Vekris, Sam Goldman, Marshall Roch, and Gabriel Levi. Fast and precise type checking for JavaScript. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):48:1–48:??, October 2017. CODEN ???? ISSN 2475-1421.
- Choi:2017:KPH**
- [CVS<sup>+</sup>17] Joonwon Choi, Muralidaran Vijayaraghavan, Benjamin Sherman, Adam Chlipala, and Arvind. Kami: a platform for high-level parametric hardware specification and its modular verification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):24:1–24:??, September 2017. CODEN ???? ISSN 2475-1421.
- Clinger:2020:HMT**
- [CW20] William D. Clinger and Mitchell Wand. Hygienic macro technology. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(HOPL):80:1–80:110, June 2020. URL <https://dl.acm.org/doi/abs/10.1145/3386330>.
- Chen:2019:RVU**
- [CWF<sup>+</sup>19] Jia Chen, Jiayi Wei, Yu Feng, Osbert Bastani, and Isil Dillig. Relational verification using reinforcement learning. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):141:1–141:30, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360567>.
- Chen:2022:SPO**
- [CWG<sup>+</sup>22] Yanju Chen, Yuepeng Wang, Maruth Goyal, James Dong, Yu Feng, and Işil Dillig. Synthesis-powered optimization of smart contracts via data type refactoring. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):145:1–145:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563308>.
- Castellan:2019:TSS**
- [CY19] Simon Castellan and Nobuko Yoshida. Two sides of the same coin: session types and game semantics: a synchronous side and an asynchronous side. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):27:1–27:29, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290340>.

- [DA18] **Dietz:2018:SMS** Will Dietz and Vikram Adve. Software multiplexing: share your libraries and statically link them too. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (OOPSLA):154:1–154:26, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276524>. [Dan18]
- [DA20] **Darragh:2020:PZF** Pierce Darragh and Michael D. Adams. Parsing with zippers (functional pearl). *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):108:1–108:28, August 2020. URL <https://dl.acm.org/doi/10.1145/3408990>. [DAY20]
- [DAB<sup>+</sup>21] **Doenges:2021:PPF** Ryan Doenges, Mina Tahmasbi Arashloo, Santiago Bautista, Alexander Chang, Newton Ni, Samwise Parkinson, Rudy Peterson, Alaia Solko-Breslin, Amanda Xu, and Nate Foster. Petr4: formal foundations for p4 data planes. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):41:1–41:32, January 2021. URL <https://dl.acm.org/doi/10.1145/3434322>. [DD22]
- [DAJE20] **Downen:2020:KCC** Paul Downen, Zena M. Ariola, Simon Peyton Jones, and Richard A. Eisenberg. Kinds are calling conventions. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):104:1–104:29, August 2020. URL <https://dl.acm.org/doi/10.1145/3408986>. [Danielsson:2018:TUS]
- [DAJE20] **David:2020:NRE** Yaniv David, Uri Alon, and Eran Yahav. Neural reverse engineering of stripped binaries using augmented control flow graphs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):225:1–225:28, November 2020. URL <https://dl.acm.org/doi/10.1145/3428293>. [Dalvandi:2022:IVR]
- [DAJE20] **Dalvandi:2022:IVR** Sadegh Dalvandi and Brijesh Dongol. Implementing and verifying release-acquire transactional memory in C11. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA2):189:1–189:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563352>. [DalLago:2019:ITR]
- [DdVMY19] **DalLago:2019:ITR** Ugo Dal Lago, Marc de Visme, Damiano Mazza, and Akira Yoshimizu. Intersection types

- and runtime errors in the pi-calculus. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL): 7:1–7:29, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290320>. [DFD21]
- [DEH<sup>+</sup>18] Ulan Degenbaev, Jochen Eisinger, Kentaro Hara, Marcel Hlopkó, Michael Lippautz, and Hannes Payer. Cross-component garbage collection. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):151:1–151:24, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276521>. [DFD22]
- [DELT17] Alastair F. Donaldson, Hugues Evrard, Andrei Lascu, and Paul Thomson. Automated testing of graphics shader compilers. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):93:1–93:??, October 2017. CODEN ???? ISSN 2475-1421. [DFLL23]
- [DEO<sup>+</sup>20] Cezara Dragoi, Constantin Enea, Burcu Kulahcioglu Ozkan, Rupak Majumdar, and Filip Niksic. Testing consensus implementations using communication closure. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):210:1–210:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428278>. [DFPG21]
- DalLago:2021:ITP**
- Ugo Dal Lago, Claudia Fag- gian, and Simona Ronchi Della Rocca. Intersection types and (positive) almost-sure termination. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL): 32:1–32:32, January 2021. URL <https://dl.acm.org/doi/10.1145/3434313>.
- DOsualdo:2022:PHC**
- Emanuele D’Osualdo, Azadeh Farzan, and Derek Dreyer. Proving hypersafety compositionally. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2): 135:1–135:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563298>.
- DiGiusto:2023:POV**
- Cinzia Di Giusto, Davide Ferré, Laetitia Laversa, and Etienne Lozes. A partial order view of message-passing communication models. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL): 55:1–55:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571248>.
- DePorre:2021:PEB**
- Kevin De Porre, Carla Ferreira, Nuno Preguiça, and Elisa Gonzalez Boix. ECROs:

- building global scale systems from sequential code. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5 (OOPSLA):107:1–107:30, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485484>.
- [DFS18] Larry Diehl, Denis Firsov, and Aaron Stump. Generic zero-cost reuse for dependent types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):104:1–104:30, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236799> **Diehl:2018:GZC**
- [DG22a] Ugo Dal Lago and Francesco Gavazzo. Effectful program distancing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):19:1–19:30, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498680> **DalLago:2022:EPD**
- [DG22b] Ugo Dal Lago and Francesco Gavazzo. A relational theory of effects and coeffects. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):31:1–31:28, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498692> **DalLago:2022:RTE**
- [DGGM23] Joel D. Day, Vijay Ganesh, Nathan Grewal, and Florin Manea. On the expressive power of string constraints. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):10:1–10:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571203> **Day:2023:EPS**
- [DHP18] Ankush Das, Jan Hoffmann, and Frank Pfenning. Parallel complexity analysis with temporal session types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):91:1–91:30, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236786> **Das:2018:PCA**
- [DJKD20] Hoang-Hai Dang, Jacques-Henri Jourdan, Jan-Oliver Kaiser, and Derek Dreyer. RustBelt meets relaxed memory. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):34:1–34:29, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371102> **Dang:2020:RMR**
- [DJR18] Brijesh Dongol, Radha Jagadeesan, and James Riely. Transactions in relaxed memory architectures. *Proceedings of*

- the ACM on Programming Languages (PACMPL)*, 2(POPL): 18:1–18:??, January 2018. CODEN ???? ISSN 2475-1421. [DLC22]
- Dunfield:2019:SCB**
- [DK19] Joshua Dunfield and Neelakantan R. Krishnaswami. Sound and complete bidirectional typechecking for higher-rank polymorphism with existentials and indexed types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):9:1–9:28, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290322>. [DLNS21]
- Dahlqvist:2020:SHO**
- [DK20] Fredrik Dahlqvist and Dexter Kozen. Semantics of higher-order probabilistic programs with conditioning. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):57:1–57:29, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371125>. [DLNV17]
- Dash:2023:AML**
- [DKPS23] Swaraj Dash, Younesse Kaddar, Hugo Paquet, and Sam Staton. Affine monads and lazy structures for Bayesian programming. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL): 46:1–46:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571239>. [DMB20]
- Dexter:2022:EOD**
- Philip Dexter, Yu David Liu, and Kenneth Chiu. The essence of online data processing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):157:1–157:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563320>.
- DiLiberti:2021:FSP**
- Ivan Di Liberti, Fosco Loregian, Chad Nester, and Paweł Sobociński. Functorial semantics for partial theories. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL): 57:1–57:28, January 2021. URL <https://dl.acm.org/doi/10.1145/3434338>.
- Darais:2017:ADI**
- David Darais, Nicholas Labich, Phúc C. Nguyen, and David Van Horn. Abstracting definitional interpreters (functional pearl). *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP): 12:1–12:??, September 2017. CODEN ???? ISSN 2475-1421.
- Devore-McDonald:2020:MDS**
- Breanna Devore-McDonald and Emery D. Berger. Mossad: defeating software plagiarism detection. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):138:1–138:28, November 2020. URL

- <https://dl.acm.org/doi/10.1145/3428206>.
- Davis:2017:NBC**
- [DMS17] Milo Davis, William Meehan, and Olin Shivers. No-brainer CPS conversion (functional pearl). *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):23:1–23:??, September 2017. CODEN ???? ISSN 2475-1421.
- Dardinier:2022:FRU**
- [DMS22] Thibault Dardinier, Peter Müller, and Alexander J. Summers. Fractional resources in unbounded separation logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):163:1–163:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563326>.
- Drechsler:2018:TSR**
- [DMSM18] Joscha Drechsler, Ragnar Mogk, Guido Salvaneschi, and Mira Mezini. Thread-safe reactive programming. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):107:1–107:30, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276477>.
- Dyer:2022:ACP**
- [DNFK22] Tristan Dyer, Tim Nelson, Kathi Fisler, and Shriram Krishnamurthi. Applying cognitive principles to model-finding output: the positive value of negative information. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):79:1–79:29, April 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527323>.
- Dardinier:2023:VPI**
- [DPM23] Thibault Dardinier, Gaurav Parthasarathy, and Peter Müller. Verification-preserving inlining in automatic separation logic verifiers. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1):102:1–102:??, April 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586054>.
- Devriese:2018:PVU**
- [DPP18] Dominique Devriese, Marco Patrignani, and Frank Piessens. Parametricity versus the universal type. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):38:1–38:??, January 2018. CODEN ???? ISSN 2475-1421.
- Desai:2018:CPT**
- [DPQS18] Ankush Desai, Amar Phanishayee, Shaz Qadeer, and Sanjit A. Seshia. Compositional programming and testing of dynamic distributed systems. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):159:1–159:30, October 2018. URL

- <https://dl.acm.org/doi/abs/10.1145/3276529>.
- Dudenhofner:2019:PAU**
- [DR19] Andrej Dudenhofner and Jakob Rehof. Principality and approximation under dimensional bound. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):8:1–8:29, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290321>.
- Dura:2021:PJA**
- [DRS21] Alexandru Dura, Christoph Reichenbach, and Emma Söderberg. JavaDL: automatically incrementalizing Java bug pattern detection. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):165:1–165:31, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485542>.
- DOsualdo:2023:PDL**
- [DRV23] Emanuele DOsualdo, Azalea Raad, and Viktor Vafeiadis. The path to durable linearizability. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):26:1–26:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571219>.
- Ding:2017:GGL**
- [DS17] Yufei Ding and Xipeng Shen. GLORE: generalized loop redundancy elimination upon LER-notation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):74:1–74:??, October 2017. CODEN ???? ISSN 2475-1421.
- Darais:2020:LPO**
- [DSLH20] David Darais, Ian Sweet, Chang Liu, and Michael Hicks. A language for probabilistically oblivious computation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):50:1–50:31, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371118>.
- Delaware:2019:NCC**
- [DSPC+19] Benjamin Delaware, Sorawit Suriyakarn, Clément Pit-Claudel, Qianchuan Ye, and Adam Chlipala. Narcissus: correct-by-construction derivation of decoders and encoders from binary formats. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):82:1–82:29, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341686>.
- Daloze:2018:PDL**
- [DTM+18] Benoit Daloze, Arie Tal, Stefan Marr, Hanspeter Mössenböck, and Erez Petrank. Parallelization of dynamic languages: synchronizing built-in collections. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2

- (OOPSLA):108:1–108:30, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276478>. [DWH23]
- [DTSLT23] Ria Das, Joshua B. Tenenbaum, Armando Solar-Lezama, and Zenna Tavares. Combining functional and automata synthesis to discover causal reactive programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):56:1–56:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571249>. [DWZ20]
- [dVP21] Paulo Emílio de Vilhena and François Pottier. A separation logic for effect handlers. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):33:1–33:28, January 2021. URL <https://dl.acm.org/doi/10.1145/3434314>. [DZ23]
- [dVPJ20] Paulo Emílio de Vilhena, François Pottier, and Jacques-Henri Jourdan. Spy game: verifying a local generic solver in Iris. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):33:1–33:28, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371101>. [EBP<sup>+</sup>23]
- [Das:2023:PRA] Ankush Das, Di Wang, and Jan Hoffmann. Probabilistic resource-aware session types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):66:1–66:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571259>. [Das:2023:CFA]
- [Dragoi:2020:PES] Cezara Dragoi, Josef Widder, and Damien Zufferey. Programming at the edge of synchrony. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):213:1–213:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428281>. [Ding:2023:WUP]
- [Ding:2023:WUP] Shuo Ding and Qirun Zhang. Witnessability of undecidable problems. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):34:1–34:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571227>. [Emre:2023:ALT]
- [Emre:2023:ALT] Mehmet Emre, Peter Boyland, Aesha Parekh, Ryan Schroeder, Kyle Dewey, and Ben Hardekopf. Aliasing limits on translating C to safe Rust. *Proceedings of the ACM on Program-*

- ming Languages (PACMPL)*, 7 (OOPSLA1):94:1–94:??, April 2023. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586046>.
- [EC22] Lucas Escot and Jesper Cockx. Practical generic programming over a universe of native datatypes. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP): 113:1–113:??, August 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547644>.
- [ECK+22] Matthias Eichholz, Eric Hayden Campbell, Matthias Krebs, Nate Foster, and Mira Mezini. Dependently-typed data plane programming. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL): 40:1–40:28, January 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498701>.
- [EDWL21] Richard A. Eisenberg, Guillaume Duboc, Stephanie Weirich, and Daniel Lee. An existential crisis resolved: type inference for first-class existential types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP): 64:1–64:29, August 2021. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473569>.
- [EE18] Michael Emmi and Constantin Enea. Sound, complete, and tractable linearizability monitoring for concurrent collections. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL): 25:1–25:??, January 2018. CODEN ????. ISSN 2475-1421.
- [EGT22] Joseph Eremondi, Ronald Garcia, and Éric Tanter. Propositional equality for gradual dependently typed programming. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP): 96:1–96:??, August 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547627>.
- [EHAO18] Martin Elsman, Troels Henriksen, Danil Annenkov, and Cosmin E. Oancea. Static interpretation of higher-order modules in Futhark: functional GPU programming in the large. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP): 97:1–97:30, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236792>.

- [EJMmH17] **ElHajj:2017:SOS** Izzat El Hajj, Thomas B. Jablin, Dejan Milojicic, and Wen mei Hwu. SAVI objects: sharing and virtuality incorporated. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1 (OOPSLA):45:1–45:??, October 2017. CODEN ???? ISSN 2475-1421.
- [Ell17a] **Elliott:2017:CC** Conal Elliott. Compiling to categories. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):27:1–27:??, September 2017. CODEN ???? ISSN 2475-1421.
- [Ell17b] **Elliott:2017:GFP** Conal Elliott. Generic functional parallel algorithms: scan and FFT. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):7:1–7:??, September 2017. CODEN ???? ISSN 2475-1421.
- [Ell18] **Elliott:2018:SEA** Conal Elliott. The simple essence of automatic differentiation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (ICFP):70:1–70:29, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236765>.
- [Ell21] **Elliott:2021:SAD** Conal Elliott. Symbolic and automatic differentiation of languages. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):78:1–78:18, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473583>.
- [END<sup>+</sup>18] **Ezudheen:2018:HIL** P. Ezudheen, Daniel Neider, Deepak D’Souza, Pranav Garg, and P. Madhusudan. Horn-ICE learning for synthesizing invariants and contracts. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (OOPSLA):131:1–131:25, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276501>.
- [EPT18] **Ehrhard:2018:MCS** Thomas Ehrhard, Michele Pagani, and Christine Tasson. Measurable cones and stable, measurable functions: a model for probabilistic higher-order programming. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):59:1–59:??, January 2018. CODEN ???? ISSN 2475-1421.
- [ESCL22] **Emrich:2022:CBT** Frank Emrich, Jan Stolarek, James Cheney, and Sam Lindley. Constraint-based type inference for FreezeML. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):111:1–111:??, August 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547642>.

- [ESDH21] **Emre:2021:TCS** Mehmet Emre, Ryan Schroeder, Kyle Dewey, and Ben Hard-ekopf. Translating C to safer Rust. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5 (OOPSLA):121:1–121:29, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485498>.
- [ETG19] **Eremondi:2019:ANG** Joseph Eremondi, Éric Tanter, and Ronald Garcia. Approximate normalization for gradual dependent types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (ICFP):88:1–88:30, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341692>.
- [EUR<sup>+</sup>17] **Ebner:2017:MFF** Gabriel Ebner, Sebastian Ullrich, Jared Roesch, Jeremy Avigad, and Leonardo de Moura. A metaprogramming framework for formal verification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1 (ICFP):34:1–34:??, September 2017. CODEN ???? ISSN 2475-1421.
- [EWR19] **Essertel:2019:PRS** Grégory M. Essertel, Guannan Wei, and Tiark Rompf. Precise reasoning with structured time, structured heaps, and collective operations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (OOPSLA):157:1–157:30, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360583>.
- [EZYS22] **Ellis:2022:GGG** Stephen Ellis, Shuofei Zhu, Nobuko Yoshida, and Linhai Song. Generic go to go: dictionary-passing, monomorphisation, and hybrid. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA2):168:1–168:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563331>.
- [FAM23] **Hou:2023:OTA** Kuen-Bang Hou (Favonia), Carlo Angiuli, and Reed Mullanix. An order-theoretic analysis of universe polymorphism. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):57:1–57:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571250>.
- [FBG20] **First:2020:TSA** Emily First, Yuriy Brun, and Arjun Guha. TacTok: semantics-aware proof synthesis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):231:1–231:31, November 2020. URL <https://dl.acm.org/doi/10.1145/3428299>.

- [FBP<sup>+</sup>21] **Ferdowsifard:2021:PLI** Kasra Ferdowsifard, Shradha Barke, Hila Peleg, Sorin Lerner, and Nadia Polikarpova. LooPy: interactive program synthesis with control structures. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5 (OOPSLA):153:1–153:29, October 2021. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485530>.
- [FCS<sup>+</sup>23] **Feng:2023:LBP** Shenghua Feng, Mingshuai Chen, Han Su, Benjamin Lucien Kaminski, Joost-Pieter Katoen, and Naijun Zhan. Lower bounds for possibly divergent probabilistic programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7 (OOPSLA1):99:1–99:??, April 2023. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586051>.
- [FCY<sup>+</sup>20] **Fluckiger:2020:CDF** Olivier Flückiger, Guido Chari, Ming-Ho Yee, Jan Jecmen, Jakob Hain, and Jan Vitek. Contextual dispatch for function specialization. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):220:1–220:24, November 2020. URL <https://dl.acm.org/doi/10.1145/3428288>.
- [FDD<sup>+</sup>19] **Flatt:2019:RRC** Matthew Flatt, Caner Dericci, R. Kent Dybvig, Andrew W. Keep, Gustavo E. Massaccesi, Sarah Spall, Sam Tobin-Hochstadt, and Jon Zepieri. Rebuilding Racket on Chez Scheme (experience report). *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (ICFP):78:1–78:15, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341642>.
- [FDvdHP22] **Frumin:2022:BSP** Dan Frumin, Emanuele D’Ousualdo, Bas van den Heuvel, and Jorge A. Pérez. A bunch of sessions: a propositions-as-sessions interpretation of bunched implications in channel-based concurrency. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA2):155:1–155:??, October 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563318>.
- [FF20] **Flanagan:2020:AVB** Cormac Flanagan and Stephen N. Freund. The anchor verifier for blocking and non-blocking concurrent software. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):156:1–156:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428224>.

- [FG18] Michael Faes and Thomas R. Gross. Concurrency-aware object-oriented programming with roles. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):130:1–130:30, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276500>. [FK18]
- [FGS<sup>+</sup>18] Daniel Feltey, Ben Greenman, Christophe Scholliers, Robert Bruce Findler, and Vincent St-Amour. Collapsible contracts: fixing a pathology of gradual typing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):133:1–133:27, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276503>. [FKE<sup>+</sup>20]
- [FISS20] Yotam M. Y. Feldman, Neil Immerman, Mooly Sagiv, and Sharon Shoham. Complexity and information in invariant inference. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):5:1–5:29, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371073>. [FKLP17]
- [FJM19] Vimuth Fernando, Keyur Joshi, and Sasa Misailovic. Verifying safety and accuracy of approximate parallel programs via canonical sequentialization. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):119:1–119:29, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360545>.
- [Farzan:2018:SSL] Azadeh Farzan and Zachary Kincaid. Strategy synthesis for linear arithmetic games. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):61:1–61:??, January 2018. CODEN ???? ISSN 2475-1421.
- [Feldman:2020:PHC] Yotam M. Y. Feldman, Artem Khyzha, Constantin Enea, Adam Morrison, Aleksandar Nanevski, Noam Rinetzky, and Sharon Shoham. Proving highly-concurrent traversals correct. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):128:1–128:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428196>.
- [Forster:2017:EPU] Yannick Forster, Ohad Kammar, Sam Lindley, and Matija Pretnar. On the expressive power of user-defined effects: effect handlers, monadic reflection, delimited control. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):13:1–13:??, September 2017. CODEN ???? ISSN 2475-1421.

- [FKP23] **Farzan:2023:SCV**  
Azadeh Farzan, Dominik Klumpp, and Andreas Podelski. Stratified commutativity in verification algorithms for concurrent programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):49:1–49:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571242>.
- [FKR20] **Forster:2020:WCV**  
Yannick Forster, Fabian Kunze, and Marc Roth. The weak call-by-value  $\lambda$ -calculus is reasonable for both time and space. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):27:1–27:23, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371095>.
- [FKRS23] **Fu:2023:PQD**  
Peng Fu, Kohei Kishida, Neil J. Ross, and Peter Selinger. Protoquipper with dynamic lifting. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):11:1–11:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571204>.
- [FKT21] **Fu:2021:LDL**  
Weili Fu, Fabian Krause, and Peter Thiemann. Label dependent lambda calculus and gradual typing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):108:1–108:29, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485485>.
- [FLMD19] **Fowler:2019:EAS**  
Simon Fowler, Sam Lindley, J. Garrett Morris, and Sára De-cova. Exceptional asynchronous session types: session types without tiers. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):28:1–28:29, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290341>.
- [FMG<sup>+</sup>20] **Flake:2020:VHA**  
Peter Flake, Phil Moorby, Steve Golson, Arturo Salz, and Simon Davidmann. Verilog HDL and its ancestors and descendants. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(HOPL):87:1–87:90, June 2020. URL <https://dl.acm.org/doi/abs/10.1145/3386337>.
- [FMTSL20] **Feser:2020:DOR**  
John Feser, Sam Madden, Nan Tang, and Armando Solar-Lezama. Deductive optimization of relational data storage. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):170:1–170:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428238>.

- [FNB<sup>+</sup>21] **Farka:2021: AAC** František Farka, Aleksandar Nanevski, Anindya Banerjee, Germán Andrés Delbianco, and Ignacio Fábregas. On algebraic abstractions for concurrent separation logics. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL): 5:1–5:32, January 2021. URL <https://dl.acm.org/doi/10.1145/3434286>.
- [FRS<sup>+</sup>21] **Fromherz:2021:PSP** Aymeric Fromherz, Aseem Rastogi, Nikhil Swamy, Sydney Gibson, Guido Martínez, Denis Merigoux, and Tahina Ramananandro. Steel: proof-oriented programming in a dependently typed concurrent separation logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP): 85:1–85:30, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473590>.
- [FS22] **Fiore:2022:FMS** Marcelo Fiore and Dmitrij Szamozvancev. Formal metatheory of second-order abstract syntax. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL): 53:1–53:29, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498715>.
- [FSD21] **Ferles:2021:VCU** Kostas Ferles, Jon Stephens, and Isil Dillig. Verifying correct usage of context-free API protocols. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL): 17:1–17:30, January 2021. URL <https://dl.acm.org/doi/10.1145/3434298>.
- [FSK<sup>+</sup>22] **Ferles:2022:SFG** Kostas Ferles, Benjamin Sepanski, Rahul Krishnan, James Bornholt, and Isil Dillig. Synthesizing fine-grained synchronization protocols for implicit monitors. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):67:1–67:26, April 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527311>.
- [FSSW21] **Feldman:2021:LBI** Yotam M. Y. Feldman, Mooly Sagiv, Sharon Shoham, and James R. Wilcox. Learning the boundary of inductive invariants. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL): 15:1–15:30, January 2021. URL <https://dl.acm.org/doi/10.1145/3434296>.
- [FSSW22] **Feldman:2022:PDR** Yotam M. Y. Feldman, Mooly Sagiv, Sharon Shoham, and James R. Wilcox. Property-directed reachability as abstract

- interpretation in the monotone theory. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL): 15:1–15:31, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498676>.
- [FSX+23] Anthony C. J. Fox, Gareth Stockwell, Shale Xiong, Hanno Becker, Dominic P. Mulligan, Gustavo Petri, and Nathan Chong. A verification methodology for the Arm confidential computing architecture: From a secure specification to safe implementations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1):88:1–88:??, April 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586040>.
- [FSY+18] Olivier Flückiger, Gabriel Scherer, Ming-Ho Yee, Aviral Goel, Amal Ahmed, and Jan Vitek. Correctness of speculative optimizations with dynamic deoptimization. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):49:1–49:??, January 2018. CODEN ???? ISSN 2475-1421.
- [FV20] Azadeh Farzan and Anthony Vandikas. Reductions for safety proofs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 13:1–13:28, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371081>.
- [FW22] Kuen-Bang Hou (Favonia) and Zhuyang Wang. Logarithm and program testing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):64:1–64:26, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498726>.
- [FZL18] Kenneth Foner, Hengchu Zhang, and Leonidas Lampropoulos. Keep your laziness in check. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):102:1–102:30, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236797>.
- [FZSN20] Umar Farooq, Zhijia Zhao, Manu Sridharan, and Iulian Neamtiu. LiveDroid: identifying and preserving mobile app state in volatile runtime environments. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):160:1–160:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428228>.

**Fox:2023:VMA****Hou:2022:LPT****Fluckiger:2018:CSO****Foner:2018:KYL****Farooq:2020:LIP****Farzan:2020:RSP**

- [GAGG<sup>+</sup>18] **Grossman:2018:ODE** Shelly Grossman, Ittai Abraham, Guy Golan-Gueta, Yan Michalevsky, Noam Rinetzky, Mooly Sagiv, and Yoni Zohar. Online detection of effectively callback free objects with applications to smart contracts. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL): 48:1–48:??, January 2018. CODEN ???? ISSN 2475-1421.
- [GB20] **Greenberg:2020:EFS** Michael Greenberg and Austin J. Blatt. Executable formal semantics for the POSIX shell. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 43:1–43:30, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371111>.
- [GBR<sup>+</sup>20] **Gao:2020:FDS** Xiang Gao, Shraddha Barke, Arjun Radhakrishna, Gustavo Soares, Sumit Gulwani, Alan Leung, Nachiappan Nagappan, and Ashish Tiwari. Feedback-driven semi-supervised synthesis of program transformations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):219:1–219:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428287>.
- [GBTB21] **Gregersen:2021:MLR** Simon Oddershede Gregersen, Johan Bay, Amin Timany, and Lars Birkedal. Mechanized logical relations for termination-insensitive noninterference. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL): 10:1–10:29, January 2021. URL <https://dl.acm.org/doi/10.1145/3434291>.
- [GCS<sup>+</sup>18] **Gong:2018:ESE** Zhangxiaowen Gong, Zhi Chen, Justin Szaday, David Wong, Zehra Sura, Neftali Watkinson, Saeed Maleki, David Padua, Alexander Veidenbaum, Alexandru Nicolau, and Josep Torrellas. An empirical study of the effect of source-level loop transformations on compiler stability. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):126:1–126:29, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276496>.
- [GCST19] **Gilbert:2019:DPI** Gaëtan Gilbert, Jesper Cockx, Matthieu Sozeau, and Nicolas Tabareau. Definitional proof-irrelevance without K. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):3:1–3:28, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290316>.
- [GCY<sup>+</sup>20] **Guo:2020:ECT** Shengjian Guo, Yueqi Chen, Jiyong Yu, Meng Wu, Zhiqiang Zuo, Peng Li, Yueqiang Cheng,

- and Huibo Wang. Exposing cache timing side-channel leaks through out-of-order symbolic execution. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):147:1–147:32, November 2020. URL <https://dl.acm.org/doi/10.1145/3428215>.
- [GD23] Francesco Gavazzo and Cecilia Di Florio. Elements of quantitative rewriting. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):63:1–63:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571256>.
- [GDBK<sup>+</sup>21] Aviral Goel, Pierre Donat-Bouillud, Filip Krikava, Christoph M. Kirsch, and Jan Vitek. What we eval in the shadows: a large-scale study of eval in R programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5 (OOPSLA):125:1–125:23, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485502>.
- [GDM20] Ivan Gavran, Eva Darulova, and Rupak Majumdar. Interactive synthesis of temporal specifications from examples and natural language. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):201:1–201:26, November 2020. URL <https://dl.acm.org/doi/10.1145/3428269>.
- [GF18] Ben Greenman and Matthias Felleisen. A spectrum of type soundness and performance. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):71:1–71:32, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236766>.
- [GFD19] Ben Greenman, Matthias Felleisen, and Christos Dimoulas. Complete monitors for gradual types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):122:1–122:29, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360548>.
- [GFFS17] Neville Grech, George Fourtounis, Adrian Francalanza, and Yannis Smaragdakis. Heaps don't lie: countering unsoundness with heap snapshots. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):68:1–68:??, October 2017. CODEN ???? ISSN 2475-1421.

**Gondelman:2021:DCM**

- [GGN<sup>+</sup>21] Léon Gondelman, Simon Oddershede Gregersen, Abel Nieto, Amin Timany, and Lars Birkedal. Distributed causal memory: modular specification and verification in higher-order distributed separation logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):42:1–42:29, January 2021. URL <https://dl.acm.org/doi/10.1145/3434323>.

**Georges:2021:EPL**

- [GGV<sup>+</sup>21] Aïna Linn Georges, Armaël Guéneau, Thomas Van Strydonck, Amin Timany, Alix Trieu, Sander Huyghebaert, Dominique Devriese, and Lars Birkedal. Efficient and provable local capability revocation using uninitialized capabilities. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):6:1–6:30, January 2021. URL <https://dl.acm.org/doi/10.1145/3434287>.

**Gibbons:2018:RAW**

- [GHHW18] Jeremy Gibbons, Fritz Henglein, Ralf Hinze, and Nicolas Wu. Relational algebra by way of adjunctions. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):86:1–86:28, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236781>.

**Griesemer:2020:FG**

- [GHK<sup>+</sup>20] Robert Griesemer, Raymond Hu, Wen Kokke, Julien Lange, Ian Lance Taylor, Bernardo Toninho, Philip Wadler, and Nobuko Yoshida. Featherweight Go. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):149:1–149:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428217>.

**Ghosh:2020:KLP**

- [GHMM20] Ritwika Ghosh, Chiao Hsieh, Sasa Misailovic, and Sayan Mitra. Koord: a language for programming and verifying distributed robotics application. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):232:1–232:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428300>.

**Goharshady:2023:AGA**

- [GHMM23] Amir Kafshdar Goharshady, S. Hitarth, Fatemeh Mohammadi, and Harshit Jitendra Motwani. Algebro-geometric algorithms for template-based synthesis of polynomial programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1):100:1–100:??, April 2023. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586052>.

- [GJJ<sup>+</sup>20] **Guo:2020:PST**  
 Zheng Guo, Michael James, David Justo, Jiaxiao Zhou, Ziteng Wang, Ranjit Jhala, and Nadia Polikarpova. Program synthesis by type-guided abstraction refinement. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):12:1–12:28, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371080> [GKMB17]
- [GJK<sup>+</sup>21] **Goel:2021:PMB**  
 Aviral Goel, Jan Jecmen, Sebastián Krynski, Olivier Flückiger, and Jan Vitek. Promises are made to be broken: migrating R to strict semantics. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):101:1–101:20, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485478> [GLBP22]
- [GJS20] **Graf:2020:LYG**  
 Sebastian Graf, Simon Peyton Jones, and Ryan G. Scott. Lower your guards: a compositional pattern-match coverage checker. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):107:1–107:30, August 2020. URL <https://dl.acm.org/doi/10.1145/3408989> [GLPS<sup>+</sup>20]
- [GKJ<sup>+</sup>18] **Grech:2018:MSG**  
 Neville Grech, Michael Kong, Anton Jurisevic, Lexi Brent, Bernhard Scholz, and Yannis Smaragdakis. MadMax: surviving out-of-gas conditions in Ethereum smart contracts. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):116:1–116:27, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276486> [Gomes:2017:VSE]
- Gomes:2017:VSE**  
 Victor B. F. Gomes, Martin Kleppmann, Dominic P. Mulligan, and Alastair R. Beresford. Verifying strong eventual consistency in distributed systems. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):109:1–109:??, October 2017. CODEN ???? ISSN 2475-1421.
- Ghica:2022:HLE**  
 Dan Ghica, Sam Lindley, Marcos Maroñas Bravo, and Maciej Piróg. High-level effect handlers in C++. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):183:1–183:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563445>.
- Gomez-Londono:2020:DYS**  
 Alejandro Gómez-Londoño, Johannes Åman Pohjola, Hira Taqdees Syeda, Magnus O. Myreen, and Yong Kiam Tan. Do you have space for dessert? A verified space cost semantics for

- CakeML programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):204:1–204:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428272>. [GM21]
- [GLR<sup>+</sup>20] Sumit Gulwani, Vu Le, Arjun Radhakrishna, Ivan Radicek, and Mohammad Raza. Structure interpretation of text formats. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):212:1–212:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428280>. [GMOO21]
- [GLSY20] Jeremiah Griffin, Mohsen Lesani, Narges Shadab, and Xizhe Yin. TLC: temporal logic of distributed components. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):123:1–123:30, August 2020. URL <https://dl.acm.org/doi/10.1145/3409005>. [GMS<sup>+</sup>23]
- [GLTS22] Neville Grech, Sifis Lagouvardos, Ilias Tsatiris, and Yannis Smaragdakis. Elipmoc: advanced decompilation of Ethereum smart contracts. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):77:1–77:27, April 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527321>. [GP22]
- [Germane:2021:NSL] Kimball Germane and Jay McCarthy. Newly-single and loving it: improving higher-order must-alias analysis with heap fragments. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):96:1–96:28, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473601>.
- [Gutsfeld:2021:AFA] Jens Oliver Gutsfeld, Markus Müller-Olm, and Christoph Ohrem. Automata and fixpoints for asynchronous hyperproperties. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):38:1–38:29, January 2021. URL <https://dl.acm.org/doi/10.1145/3434319>.
- [Goncharov:2023:THO] Sergey Goncharov, Stefan Milius, Lutz Schröder, Stelios Tsampas, and Henning Urbat. Towards a higher-order mathematical operational semantics. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):22:1–22:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571215>.
- [Goldstein:2022:PR] Harrison Goldstein and Ben-

- jamin C. Pierce. Parsing randomness. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA2):128:1–128:??, October 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563291>.
- [GPP<sup>+</sup>21] Silvia Ghilezan, Jovanka Pantović, Ivan Prokić, Alceste Scalas, and Nobuko Yoshida. Precise subtyping for asynchronous multiparty sessions. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):16:1–16:28, January 2021. URL <https://dl.acm.org/doi/10.1145/3434297>.
- [GRB20] Shubhani Gupta, Abhishek Rose, and Sorav Bansal. Counterexample-guided correlation algorithm for translation validation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):221:1–221:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428289>.
- [GRS<sup>+</sup>21] Xiang Gao, Arjun Radhakrishna, Gustavo Soares, Ridwan Shariffdeen, Sumit Gulwani, and Abhik Roychoudhury. APIfix: output-oriented program synthesis for combating breaking changes in libraries. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5 (OOPSLA):161:1–161:27, October 2021. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485538>.
- [GRXB19] Kaan Genç, Jake Roemer, Yufan Xu, and Michael D. Bond. Dependence-aware, unbounded sound predictive race detection. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (OOPSLA):179:1–179:30, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360605>.
- [GS17] Neville Grech and Yannis Smaragdakis. P/Taint: unified points-to and taint analysis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):102:1–102:??, October 2017. CODEN ????? ISSN 2475-1421.
- [GS22] Pranav Garg and Srinivasan H. Sengamedu. Synthesizing code quality rules from examples. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):187:1–187:??, October 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563350>.

**Ghilezan:2021:PSA****Genc:2019:DAU****Gupta:2020:CGC****Grech:2017:PTU****Gao:2021:PAO****Garg:2022:SCQ**

**Gratzer:2019:IMD**

- [GSB19] Daniel Gratzer, Jonathan Sterling, and Lars Birkedal. Implementing a modal dependent type theory. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):107:1–107:29, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341711>. ■

**Gancher:2023:CCE**

- [GSF+23] Joshua Gancher, Kristina Sojakova, Xiong Fan, Elaine Shi, and Greg Morrisett. A core calculus for equational proofs of cryptographic protocols. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):30:1–30:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571223>.

**Gäher:2022:SSL**

- [GSS+22] Lennard Gäher, Michael Sammler, Simon Spies, Ralf Jung, Hoang-Hai Dang, Robbert Krebbers, Jeehoon Kang, and Derek Dreyer. Simuliris: a separation logic framework for verifying concurrent program optimizations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):28:1–28:31, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498689>.

**Giarrusso:2020:SSS**

- [GST+20] Paolo G. Giarrusso, Léo Stefanescu, Amin Timany, Lars Birkedal, and Robbert Krebbers. Scala step-by-step: soundness for DOT with step-indexed logical relations in Iris. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):114:1–114:29, August 2020. URL <https://dl.acm.org/doi/10.1145/3408996>.

**Giannarakis:2021:PPP**

- [GSW21] Nick Giannarakis, Alexandra Silva, and David Walker. ProbNV: probabilistic verification of network control planes. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):90:1–90:30, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473595>.

**Georges:2022:TCE**

- [GTB22] Aïna Linn Georges, Alix Trieu, and Lars Birkedal. Le temps des cerises: efficient temporal stack safety on capability machines using directed capabilities. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):74:1–74:30, April 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527318>.

- [GTF<sup>+</sup>20] Tobias Grosser, Theodoros Theodoridis, Maximilian Falkenstein, Arjun Pitchanathan, Michael Kruse, Manuel Rigger, Zhendong Su, and Torsten Hoefler. Fast linear programming through transprecision computing on small and sparse data. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):195:1–195:28, November 2020. URL <https://dl.acm.org/doi/10.1145/3428263>.
- [GTT21] Satyajit Gokhale, Alexi Turcotte, and Frank Tip. Automatic migration from synchronous to asynchronous JavaScript APIs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):160:1–160:27, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485537>.
- [GTU23] Yu Gu, Takeshi Tsukada, and Hiroshi Unno. Optimal CHC solving via termination proofs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):21:1–21:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571214>.
- [GV19] Tobias Grosser, Theodoros Theodoridis, Maximilian Falkenstein, Arjun Pitchanathan, Michael Kruse, Manuel Rigger, Zhendong Su, and Torsten Hoefler. Fast linear programming through transprecision computing on small and sparse data. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (OOPSLA):153:1–153:27, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360579>.
- [GXD20] Hamed Gorjiara, Guoqing Harry Xu, and Brian Demsky. Satune: synthesizing efficient SAT encoders. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):146:1–146:32, November 2020. URL <https://dl.acm.org/doi/10.1145/3428214>.
- [GY23] Lorenzo Gheri and Nobuko Yoshida. Hybrid multiparty session types: Compositionality for protocol specification through endpoint projection. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1):79:1–79:??, April 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586031>.
- [GYK<sup>+</sup>20] Dietrich Geisler, Irene Yoon, Aditi Kabra, Horace He, Yinon Sanders, and Adrian Sampson. Geometry types for graphics programming. *Proceed-*

- ings of the ACM on Programming Languages (PACMPL), 4 (OOPSLA):173:1–173:25, November 2020. URL <https://dl.acm.org/doi/10.1145/3428241>. [HC21]
- [Ham17] Makoto Hamana. How to prove your calculus is decidable: practical applications of second-order algebraic theories and computation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):22:1–22:??, September 2017. CODEN ???? ISSN 2475-1421.
- [HBK20] Jonas Kastberg Hinrichsen, Jesper Bengtson, and Robbert Krebbers. Actris: session-type based reasoning in separation logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):6:1–6:30, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371074>. [HdSO21]
- [HBP19] Ian Henriksen, Gianfranco Biliardi, and Keshav Pingali. Derivative grammars: a symbolic approach to parsing with derivatives. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):127:1–127:28, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360553>. [HFCG19]
- [Hirsch:2021:GSP] Andrew K. Hirsch and Ethan Cecchetti. Giving semantics to program-counter labels via secure effects. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):35:1–35:29, January 2021. URL <https://dl.acm.org/doi/10.1145/3434316>.
- [Huang:2021:DIU] Xuejing Huang and Bruno C. d. S. Oliveira. Distributing intersection and union types with splits and duality (functional pearl). *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):89:1–89:24, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473594>.
- [Huang:2019:MVA] Mingzhang Huang, Hongfei Fu, Krishnendu Chatterjee, and Amir Kafshdar Goharshady. Modular verification for almost-sure termination of probabilistic programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):129:1–129:29, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360555>. [HFS22]
- [Hoeflich:2022:HIK] Joshua Hoeflich, Robert Bruce Findler, and Manuel Serrano. Highly illogical, Kirk: spotting type mismatches in

- the large despite broken contracts, unsound types, and too many linters. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA2):142:1–142:??, October 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563305>.  
**Hirsch:2022:PHO**
- [HG22] Andrew K. Hirsch and Deepak Garg. Pirouette: higher-order typed functional choreographies. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):23:1–23:27, January 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498684>.  
**Haudebourg:2020:RLT**
- [HGJ20] Timothée Haudebourg, Thomas Genet, and Thomas Jensen. Regular language type inference with term rewriting. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):112:1–112:29, August 2020. URL <https://dl.acm.org/doi/10.1145/3408994>.  
**Hackett:2018:PPO**
- [HH18] Jennifer Hackett and Graham Hutton. Parametric polymorphism and operational improvement. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (ICFP):68:1–68:24, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236763>.  
**Hackett:2019:CNC**
- [HH19] Jennifer Hackett and Graham Hutton. Call-by-need is clairvoyant call-by-value. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):114:1–114:23, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341718>.  
**He:2020:TAE**
- [HH20] Fei He and Jitao Han. Termination analysis for evolving programs: an incremental approach by reusing certified modules. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):199:1–199:27, November 2020. URL <https://dl.acm.org/doi/10.1145/3428267>.  
**Haner:2020:ABO**
- [HHT20] Thomas Häner, Torsten Hoefler, and Matthias Troyer. Assertion-based optimization of quantum programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):133:1–133:20, November 2020. URL <https://dl.acm.org/doi/10.1145/3428201>.  
**Henry:2021:CSA**
- [HHY<sup>+</sup>21] Rawn Henry, Olivia Hsu, Rohan Yadav, Stephen Chou, Kunle Olukotun, Saman Amarasinghe, and Fredrik Kjolstad. Compilation of sparse array

- programming models. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):128:1–128:29, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485505>.
- [Hic20] Rich Hickey. A history of Clojure. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(HOPL):71:1–71:46, June 2020. URL <https://dl.acm.org/doi/abs/10.1145/3386321>. **Hickey:2020:HC**
- [Hir19] Tom Hirschowitz. Familial monads and structural operational semantics. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):21:1–21:28, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290334>. **Hirschowitz:2019:FMS**
- [HJL<sup>+</sup>18] Lukáš Holk, Petr Janku, Anthony W. Lin, Philipp Rümmer, and Tomáš Vojnar. String constraints with concatenation and transducers solved efficiently. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):4:1–4:??, January 2018. CODEN ???? ISSN 2475-1421. **Holk:2018:SCC**
- [HK20] Roger K. W. Hui and Morten J. Kromberg. APL since 1978. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(HOPL):69:1–69:108, June 2020. URL <https://dl.acm.org/doi/abs/10.1145/3386319>. **Heunen:2022:QIE**
- [HK22] Chris Heunen and Robin Kaarsgaard. Quantum information effects. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):2:1–2:27, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498663>. **Heunen:2022:QIE**
- [HKGG20] Marcel Hark, Benjamin Lucien Kaminski, Jürgen Giesl, and Joost-Pieter Katoen. Aiming low is harder: induction for lower bounds in probabilistic program verification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):37:1–37:28, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371105>. **Hark:2020:ALH**
- [HKSS21] Wolf Honoré, Jieung Kim, Ji-Yong Shin, and Zhong Shao. Much ADO about failures: a fault-aware model for compositional verification of strongly consistent distributed systems. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):97:1–97:31, October 2021. CODEN ???? ISSN 2475-1421. **Honore:2021:MAA**

- ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485474>.
- [HKVR21] Shivam Handa, Konstantinos Kallas, Nikos Vasilakis, and Martin C. Rinard. An order-aware dataflow model for parallel Unix pipelines. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):65:1–65:28, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473570>.
- [HLL20] **Handa:2021:OAD** Daniel Hillerström, Sam Lindley, and John Longley. Effects for efficiency: asymptotic speedup with first-class control. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):100:1–100:29, August 2020. URL <https://dl.acm.org/doi/10.1145/3408974>.
- [HLV21] **Hillerstrom:2020:EEA** Farzin Houshmand, Mohsen Lesani, and Keval Vora. Grafts: declarative graph analytics. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):83:1–83:32, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473588>.
- [HL20] Jason Z. S. Hu and Ondrej Lhoták. Undecidability of  $d$ : and its decidable fragments. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):9:1–9:30, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371077>.
- [HMDL22] **Hu:2020:UDF** Thomas Haas, Roland Meyer, and Hernán Ponce de León. CAAT: consistency as a theory. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):129:1–129:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563292>.
- [HMP+22] **Hagedorn:2020:AHP** Bastian Hagedorn, Johannes Lenfers, Thomas Köhler, Xueying Qin, Sergei Gorlatch, and Michel Steuwer. Achieving high-performance the functional way: a functional pearl on expressing high-performance optimizations as rewrite strategies. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):92:1–92:29, August 2020. URL <https://dl.acm.org/doi/10.1145/3563292>.
- [HMP+22] **Haas:2022:CCT** Wenlei He, Julián Mestre, Sergey Pupyrev, Lei Wang,

- and Hongtao Yu. Profile inference revisited. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):52:1–52:24, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498714>. [HPC18]
- [HP19] Aliya Hameer and Brigitte Pientka. Teaching the art of functional programming using automated grading (experience report). *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):115:1–115:15, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341719>. [Hameer:2019:TAF]
- [HP22] Son Ho and Jonathan Protzenko. Aeneas: Rust verification by functional translation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):116:1–116:??, August 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547647>. [Ho:2022:ARV]
- [HP23] Emmanuel Hainry and Romain Péchoux. A general noninterference policy for polynomial time. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):28:1–28:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571221>. [Horn:2018:IRL]
- Rudi Horn, Roly Perera, and James Cheney. Incremental relational lenses. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):74:1–74:30, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236769>. [Herklotz:2021:FVH]
- [HPRW21] Yann Herklotz, James D. Pollard, Nadesh Ramanathan, and John Wickerson. Formal verification of high-level synthesis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):117:1–117:30, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485494>. [Hietala:2021:VOQ]
- [HRH<sup>+</sup>21] Kesha Hietala, Robert Rand, Shih-Han Hung, Xiaodi Wu, and Michael Hicks. A verified optimizer for quantum circuits. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):37:1–37:29, January 2021. URL <https://dl.acm.org/doi/10.1145/3434318>. [Hunt:2023:RSS]
- [HSS23] Sebastian Hunt, David Sands, and Sandro Stucki. Reconciling Shannon and Scott with

- a lattice of computable information. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL): 68:1–68:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571740>. [HVK19]
- [HT18] Andrew K. Hirsch and Ross Tate. Strict and lazy semantics for effects: layering monads and comonads. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):88:1–88:30, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236783>. [HVM20]
- [HTLS22] Tram Hoang, Anton Trunov, Leonidas Lampropoulos, and Ilya Sergey. Random testing of a higher-order blockchain language (experience report). *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):122:1–122:??, August 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547653>. [HWC<sup>+</sup>21]
- [HVK19] Jad Hamza, Nicolas Voirol, and Viktor Kuncak. System FR: formalized foundations for the Stainless verifier. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):166:1–166:30, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360592>. URL <https://dl.acm.org/doi/abs/10.1145/3371092>.
- [Hirsch:2018:SLS] Hirsch:2018:SLS
- [Holtzen:2020:SEI] Holtzen:2020:SEI
- [Holtzen:2020:SEI] Steven Holtzen, Guy Van den Broeck, and Todd Millstein. Scaling exact inference for discrete probabilistic programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):140:1–140:31, November 2020. URL <https://dl.acm.org/doi/10.1145/3428208>.
- [He:2021:TSE] He:2021:TSE
- [He:2021:TSE] Paul He, Eddy Westbrook, Brent Carmer, Chris Phifer, Valentin Robert, Karl Smeltzer, Andrei Ștefănescu, Aaron Tomb, Adam Wick, Matthew Yacavone, and Steve Zdancewic. A type system for extracting functional specifications from memory-safe imperative programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):135:1–135:29, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL
- [Handley:2020:LYA] Handley:2020:LYA
- [HVK19] Martin A. T. Handley, Niki Vazou, and Graham Hutton. Liquidate your assets: reasoning about resource usage in liquid Haskell. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 24:1–24:27, January 2020.

- <https://dl.acm.org/doi/10.1145/3485512>.
- Iorga:2021:SSM**
- [IDSW21] Dan Iorga, Alastair F. Donaldson, Tyler Sorensen, and John Wickerson. The semantics of shared memory in Intel CPU/FPGA systems. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):138:1–138:23, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485515>.
- Inala:2018:WIW**
- [IS18] Jeevana Priya Inala and Rishabh Singh. WebRelate: integrating web data with spreadsheets using examples. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):2:1–2:??, January 2018. CODEN ???? ISSN 2475-1421.
- Ikebuchi:2022:CDS**
- [IEC22] Mirai Ikebuchi, Andres Erbsen, and Adam Chlipala. Certifying derivation of state machines from coroutines. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):24:1–24:31, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498685>.
- Igarashi:2017:PGT**
- [ISI17] Yuu Igarashi, Taro Sekiyama, and Atsushi Igarashi. On polymorphic gradual typing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):40:1–40:??, September 2017. CODEN ???? ISSN 2475-1421.
- Igarashi:2017:GST**
- [ITVW17] Atsushi Igarashi, Peter Thiemann, Vasco T. Vasconcelos, and Philip Wadler. Gradual session types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):38:1–38:??, September 2017. CODEN ???? ISSN 2475-1421.
- Ingalls:2020:ESS**
- [Ing20] Daniel Ingalls. The evolution of Smalltalk: from Smalltalk-72 through Squeak. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(HOPL):85:1–85:101, June 2020. URL <https://dl.acm.org/doi/abs/10.1145/3386335>.
- Ishimwe:2021:PDA**
- [INN21] Didier Ishimwe, KimHao Nguyen, and ThanhVu Nguyen. Dynaplex: analyzing program complexity using dynamically inferred recurrence relations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):138:1–138:23, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485515>.
- Jaber:2020:SAC**
- [Jab20] Guilhem Jaber. SyTeCi: automating contextual equiva-

- lence for higher-order programs with references. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):59:1–59:28, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371127>.
- [Jac21] Jules Jacobs. Paradoxes of probabilistic programming: and how to condition on events of measure zero with infinitesimal probabilities. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):58:1–58:26, January 2021. URL <https://dl.acm.org/doi/10.1145/3434339>.
- [JB23] Jules Jacobs and Stephanie Balzer. Higher-order leak and deadlock free locks. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):36:1–36:??, January 2023. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571229>.
- [JBK22a] Jules Jacobs, Stephanie Balzer, and Robbert Krebbers. Connectivity graphs: a method for proving deadlock freedom based on separation logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):1:1–1:33, January 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498662>.
- [JBK22b] Jules Jacobs, Stephanie Balzer, and Robbert Krebbers. Multiparty GV: functional multiparty session types with certified deadlock freedom. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):107:1–107:??, August 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547638>.
- [JDKD20] Ralf Jung, Hoang-Hai Dang, Jeehoon Kang, and Derek Dreyer. Stacked borrows: an aliasing model for Rust. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):41:1–41:32, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371109>.
- [JDT22] Koen Jacobs, Dominique Devriese, and Amin Timany. Purity of an ST monad: full abstraction by semantically typed back-translation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):82:1–82:27, April 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527326>.

**Jacobs:2021:PPP****Jacobs:2022:MGF****Jung:2020:SBA****Jacobs:2023:HOL****Jacobs:2022:PSM****Jacobs:2022:CGM**

- Jang:2022:MMU**
- [JGMP22] Junyoung Jang, Samuel G lineau, Stefan Monnier, and Brigitte Pientka. Moebius: metaprogramming using contextual types: the stage where system f can pattern match on itself. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL): 39:1–39:27, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498700>.
- James:2020:DFS**
- [JGW+20] Michael B. James, Zheng Guo, Ziteng Wang, Shivani Doshi, Hila Peleg, Ranjit Jhala, and Nadia Polikarpova. Digging for fold: synthesis-aided API discovery for Haskell. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):205:1–205:27, November 2020. URL <https://dl.acm.org/doi/10.1145/3428273>.
- Jeong:2017:DDC**
- [JJCO17] Sehun Jeong, Minseok Jeon, Sungdeok Cha, and Hakjoo Oh. Data-driven context-sensitivity for points-to analysis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):100:1–100:??, October 2017. CODEN ???? ISSN 2475-1421.
- Jung:2018:RSF**
- [JJKD18] Ralf Jung, Jacques-Henri Jourdan, Robbert Krebbers, and Derek Dreyer. RustBelt: securing the foundations of the Rust programming language. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL): 66:1–66:??, January 2018. CODEN ???? ISSN 2475-1421.
- Jeon:2018:PSP**
- [JJO18] Minseok Jeon, Sehun Jeong, and Hakjoo Oh. Precise and scalable points-to analysis via data-driven context tunneling. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):140:1–140:29, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276510>.
- Jagadeesan:2020:PPS**
- [JJR20] Radha Jagadeesan, Alan Jeffrey, and James Riely. Pomsets with preconditions: a simple model of relaxed memory. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):194:1–194:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428262>.
- Jochems:2023:HOM**
- [JJR23] Jerome Jochems, Eddie Jones, and Steven Ramsay. Higher-order MSL Horn constraints. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):69:1–69:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL

- <https://dl.acm.org/doi/10.1145/3571262>. **Jeon:2020:LGB**
- [JKL<sup>+</sup>22] Xiaodong Jia, Andre Kornell, Bert Lindenhovius, Michael Mislove, and Vladimir Zamdzhev. Semantics for variational quantum programming. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):26:1–26:31, January 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498687>. **Jia:2022:SVQ** [JLO20]
- [JKT21] Xiaodong Jia, Ashish Kumar, and Gang Tan. A derivative-based parser generator for visibly pushdown grammars. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):151:1–151:24, October 2021. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485528>. **Jia:2021:DBP** [JLP<sup>+</sup>20]
- [JKXH23] Ruyi Ji, Chaozhe Kong, Yingfei Xiong, and Zhenjiang Hu. Improving oracle-guided inductive synthesis by efficient question selection. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1):103:1–103:??, April 2023. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586055>. **Ji:2023:IOG** [JME20]
- [JLO20] Minseok Jeon, Myungho Lee, and Hakjoo Oh. Learning graph-based heuristics for pointer analysis without handcrafting application-specific features. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):179:1–179:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428247>. **Jeon:2020:LGB**
- [JLP<sup>+</sup>20] Ralf Jung, Rodolphe Lepigre, Gaurav Parthasarathy, Marianna Rapoport, Amin Timany, Derek Dreyer, and Bart Jacobs. The future is ours: prophecy variables in separation logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):45:1–45:32, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371113>. **Jung:2020:FOP**
- [JME20] Mark P. Jones, J. Garrett Morris, and Richard A. Eisenberg. Partial type constructors: or, making ad hoc datatypes less ad hoc. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):40:1–40:28, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371108>. **Jones:2020:PTC**
- [JO22] Minseok Jeon and Hakjoo Oh. Return of CFA: call-site sensi- **Jeon:2022:RCC**

- tivity can be superior to object sensitivity even for object-oriented programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):58:1–58:29, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498720>. [JRB+22]
- Jangda:2019:FFS**
- [JPBG19] Abhinav Jangda, Donald Pinckney, Yuriy Brun, and Arjun Guha. Formal foundations of serverless computing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):149:1–149:26, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360575>. [JSXH20]
- Jin:2022:NAS**
- [JPR22] Charles Jin, Phitchaya Mangpo Phothilimthana, and Sudip Roy. Neural architecture search using property guided synthesis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):166:1–166:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563329>.
- Jones:2021:IDR**
- [JR21] Eddie Jones and Steven Ramsey. Intensional datatype refinement: with application to scalable verification of pattern-match safety. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):55:1–55:29, January 2021. URL <https://dl.acm.org/doi/10.1145/3434336>. [Jeffrey:2022:LSC]
- Jeffrey:2022:LSC**
- Alan Jeffrey, James Riely, Mark Batty, Simon Cooksey, Ilya Kaysin, and Anton Podkopaev. The leaky semicolon: compositional semantic dependencies for relaxed-memory concurrency. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):54:1–54:30, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498716>.
- Ji:2020:GDP**
- [Ji:2020:GDP] Ruyi Ji, Yican Sun, Yingfei Xiong, and Zhenjiang Hu. Guiding dynamic programming via structural probability for accelerating programming by example. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):224:1–224:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428292>.
- Jacobs:2021:FAS**
- [JTD21] Koen Jacobs, Amin Timany, and Dominique Devriese. Fully abstract from static to gradual. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):7:1–7:30, January 2021. URL <https://dl.acm.org/doi/10.1145/3434288>.

- [JW23] **Jacobs:2023:FCB** Jules Jacobs and Thorsten Wißmann. Fast coalgebraic bisimilarity minimization. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL): 52:1–52:??, January 2023. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571245>.
- [JWJ+21] **Jaber:2021:PQM** Nouraldin Jaber, Christopher Wagner, Swen Jacobs, Milind Kulkarni, and Roopsha Samanta. QuickSilver: modeling and parameterized verification for distributed agreement-based systems. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):157:1–157:31, October 2021. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485534>.
- [JXXH21] **Ji:2021:GST** Ruyi Ji, Jingtao Xia, Yingfei Xiong, and Zhenjiang Hu. Generalizable synthesis through unification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA): 167:1–167:28, October 2021. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485544>. [KCL22]
- [Kav19] **Kavvos:2019:MCI** G. A. Kavvos. Modalities, cohesion, and information flow. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL): 20:1–20:29, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290333>.
- [KCB+23] **Klimis:2023:TBC** Vasileios Klimis, Jack Clark, Alan Baker, David Neto, John Wickerson, and Alastair F. Donaldson. Taking back control in an intermediate representation for GPU computing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL): 60:1–60:??, January 2023. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571253>.
- [KCBR18] **Kincaid:2018:NLR** Zachary Kincaid, John Cyphert, Jason Breck, and Thomas Reps. Non-linear reasoning for invariant synthesis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL): 54:1–54:??, January 2018. CODEN ????. ISSN 2475-1421.
- [KCL22] **Ko:2022:DGP** Hsiang-Shang Ko, Liang-Ting Chen, and Tzu-Chi Lin. Datatype-generic programming meets elaborator reflection. *Proceedings of the ACM on Programming Languages (PACMPL)*.

- 6(ICFP):98:1–98:??, August 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547629>.
- [KD23] Paraschos Koutris and Shaleen Deep. The fine-grained complexity of CFL reachability. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):59:1–59:??, January 2023. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571252>.
- [KDR23] Jinwoo Kim, Loris D’Antoni, and Thomas Reps. Unrealizability logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):23:1–23:??, January 2023. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571216>.
- [KE19] Sven Keidel and Sebastian Edelweg. Sound and reusable components for abstract interpretation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):176:1–176:28, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360602>.
- [KES22] Delia Kesner. A fine-grained computational interpretation of Girard’s intuitionistic proof-nets. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):8:1–8:28, January 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498669>.
- [KESJ18] Gowtham Kaki, Kapil Earanky, KC Sivaramakrishnan, and Suresh Jagannathan. Safe replication through bounded concurrency verification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):164:1–164:27, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276534>.
- [KEW<sup>+</sup>20] Mirko Köhler, Nafise Eskandani, Pascal Weisenburger, Alessandro Margara, and Guido Salvaneschi. Rethinking safe consistency in distributed object-oriented programming. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):188:1–188:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428256>.
- [KFEJ19] Csongor Kiss, Tony Field, Susan Eisenbach, and Simon Peyton Jones. Higher-order type-level programming in Haskell. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):102:1–102:26, July 2019.

2019. URL <https://dl.acm.org/doi/abs/10.1145/3341706>. **Kazerounian:2021:PSS**
- [KFM21] Milod Kazerounian, Jeffrey S. Foster, and Bonan Min. SimTyper: sound type inference for Ruby using type equality prediction. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):106:1–106:27, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485483>. **Koppel:2022:SEP**
- [KGdV<sup>+</sup>22] James Koppel, Zheng Guo, Edsko de Vries, Armando Solar-Lezama, and Nadia Polikarpova. Searching entangled program spaces. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):91:1–91:??, August 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547622>. **Ko:2018:ABB**
- [KH18] Hsiang-Shang Ko and Zhenjiang Hu. An axiomatic basis for bidirectional programming. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):41:1–41:??, January 2018. CODEN ???? ISSN 2475-1421. **Kahn:2021:AAR**
- [KH21] David M. Kahn and Jan Hoffmann. Automatic amortized re-source analysis with the quantum physicist’s method. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):76:1–76:29, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473581>. **Kim:2021:SGS**
- [KHDR21] Jinwoo Kim, Qinheping Hu, Loris D’Antoni, and Thomas Reps. Semantics-guided synthesis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):30:1–30:32, January 2021. URL <https://dl.acm.org/doi/10.1145/3434311>. **Keuchel:2022:VSE**
- [KHL22] Steven Keuchel, Sander Huyghebaert, Georgy Lukyanov, and Dominique Devriese. Verified symbolic execution with Kripke specification monads (and no meta-programming). *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):97:1–97:??, August 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547628>. **King:2020:HGP**
- [Kin20] Paul King. A history of the Groovy programming language. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(HOPL):76:1–76:53, June 2020. URL <https://>

- /dl.acm.org/doi/abs/10.1145/3386326.
- [KJJ<sup>+</sup>18] **Krebbbers:2018:MGE** Robbert Krebbbers, Jacques-Henri Jourdan, Ralf Jung, Joseph Tassarotti, Jan-Oliver Kaiser, Amin Timany, Arthur Charguéraud, and Derek Dreyer. MoSeL: a general, extensible modal framework for interactive proofs in separation logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):77:1–77:30, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236772>.
- [KJK<sup>+</sup>22] **Krawiec:2022:PCA** Faustyna Krawiec, Simon Peyton Jones, Neel Krishnaswami, Tom Ellis, Richard A. Eisenberg, and Andrew Fitzgibbon. Provably correct, asymptotically efficient, higher-order reverse-mode automatic differentiation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):48:1–48:30, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498710>.
- [KKA19] **Kaposi:2019:CQI** Ambrus Kaposi, András Kovács, and Thorsten Altenkirch. Constructing quotient inductive-inductive types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):2:1–2:24, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290315>.
- [KKC<sup>+</sup>17] **Kjolstad:2017:TAC** Fredrik Kjolstad, Shoaib Kamil, Stephen Chou, David Lugato, and Saman Amarasinghe. The tensor algebra compiler. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):77:1–77:??, October 2017. CODEN ???? ISSN 2475-1421.
- [KKCV17] **Kaminski:2017:RAC** Ted Kaminski, Lucas Kramer, Travis Carlson, and Eric Van Wyk. Reliable and automatic composition of language extensions to C: the ableC extensible language framework. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):98:1–98:??, October 2017. CODEN ???? ISSN 2475-1421.
- [KKPS21] **Karachalias:2021:ECA** Georgios Karachalias, Filip Koprivec, Matija Pretnar, and Tom Schrijvers. Efficient compilation of algebraic effect handlers. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):102:1–102:28, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485479>.
- [KKRV21] **Kokologiannakis:2021:PPS** Michalis Kokologiannakis, Ilya Kaysin, Azalea Raad, and Vik-

- tor Vafeiadis. PerSeVerE: persistence semantics for verification under ext4. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):43:1–43:29, January 2021. URL <https://dl.acm.org/doi/10.1145/3434324>. [KL21]
- Koppel:2022:ADC**
- [KKS22] James Koppel, Jackson Kears, and Armando Solar-Lezama. Automatically deriving control-flow graph generators from operational semantics. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):117:1–117:??, August 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547648>.
- Konnov:2019:TMC**
- [KKT19] Igor Konnov, Jure Kukovec, and Thanh-Hai Tran. TLA+ model checking made symbolic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):123:1–123:30, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360549>. [KLMM22]
- Kincaid:2023:WLM**
- [KKZ23] Zachary Kincaid, Nicolas Koh, and Shaowei Zhu. When less is more: Consequence-finding in a weak theory of arithmetic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):44:1–44:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571237>. [Khyzha:2021:TXT]
- Artem Khyzha and Ori Lahav. Taming x86-TSO persistence. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):47:1–47:29, January 2021. URL <https://dl.acm.org/doi/10.1145/3434328>.
- Kabir:2020:DCO**
- [KLL20] Ifaz Kabir, Yufeng Li, and Ondrej Lhoták.  $\iota$ DOT: a DOT calculus with object initialization. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):208:1–208:28, November 2020. URL <https://dl.acm.org/doi/10.1145/3428276>.
- Krogmeier:2022:SAU**
- [KLM22] Paul Krogmeier, Zhengyao Lin, Adithya Murali, and P. Madhusudan. Synthesizing axiomatizations using logic learning. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):185:1–185:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563348>.
- Karimov:2022:WDA**
- [KLO<sup>+</sup>22] Toghrul Karimov, Engel Lefauchaux, Joël Ouaknine, David Purser, Anton Varonka, Markus A.

- Whiteland, and James Worell. What’s decidable about linear loops? *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL): 65:1–65:25, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498727>. [KM20]
- Kokologiannakis:2018:ESM**
- [KLSV18] Michalis Kokologiannakis, Ori Lahav, Konstantinos Sagonas, and Viktor Vafeiadis. Effective stateless model checking for C/C++ concurrency. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):17:1–17:??, January 2018. CODEN ???? ISSN 2475-1421. [KM22]
- Kokologiannakis:2023:KAW**
- [KLV23] Michalis Kokologiannakis, Ori Lahav, and Viktor Vafeiadis. Kater: Automating weak memory model metatheory and consistency checking. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):19:1–19:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571212>. [KM23]
- Kristensen:2017:TTS**
- [KM17] Erik Krogh Kristensen and Anders Møller. Type test scripts for TypeScript testing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):90:1–90:??, October 2017. CODEN ???? ISSN 2475-1421. [KMD<sup>+</sup>22]
- Kong:2020:SQL**
- Lingkun Kong and Konstantinos Mamouras. StreamQL: a query language for processing streaming time series. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):183:1–183:32, November 2020. URL <https://dl.acm.org/doi/10.1145/3428251>.
- Krogmeier:2022:LFF**
- Paul Krogmeier and P. Madhusudan. Learning formulas in finite variable logics. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):10:1–10:28, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498671>.
- Krogmeier:2023:LDL**
- Paul Krogmeier and P. Madhusudan. Languages with decidable learning: a meta-theorem. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1):80:1–80:??, April 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586032>.
- Kalita:2022:SAT**
- Pankaj Kumar Kalita, Sujit Kumar Muduli, Loris D’Antoni, Thomas Reps, and Subhajit Roy. Synthesizing ab-

- stract transformers. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA2):171:1–171:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563334>.
- [KMGV22] **Kokologiannakis:2022:TSO** Michalis Kokologiannakis, Iason Marmanis, Vladimir Gladstein, and Viktor Vafeiadis. Truly stateless, optimal dynamic partial order reduction. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):49:1–49:28, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498711>.
- [KMLD20] **Kavvos:2020:REF** G. A. Kavvos, Edward Morehouse, Daniel R. Licata, and Norman Danner. Recurrence extraction for functional programs through call-by-push-value. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):15:1–15:31, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371083>.
- [KMO23] **Kerinec:2023:WPR** Axel Kerinec, Giulio Manzonetto, and Federico Olimpieri. Why are proofs relevant in proof-relevant models? *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):8:1–8:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571201>.
- [KMP19] **Kokke:2019:BLT** Wen Kokke, Fabrizio Montesi, and Marco Peressotti. Better late than never: a fully-abstract semantics for classical processes. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):24:1–24:29, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290337>.
- [KMP19] **Krikava:2019:SIE** Filip Krikava, Heather Miller, and Jan Vitek. Scala implicits are everywhere: a large-scale study of the use of Scala implicits in the wild. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (OOPSLA):163:1–163:28, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360589>.
- [KNJ<sup>+</sup>22] **Kolosick:2022:ITN** Matthew Kolosick, Shravan Narayan, Evan Johnson, Conrad Watt, Michael LeMay, Deepak Garg, Ranjit Jhala, and Deian Stefan. Isolation without taxation: near-zero-cost transitions for WebAssembly and SFI. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):27:1–27:30, January 2022. CODEN ???? ISSN 2475-1421

- (electronic). URL <https://dl.acm.org/doi/10.1145/3498688>. [KO23]
- Kaki:2018:ATC**
- [KNNJ18] Gowtham Kaki, Kartik Nagar, Mahsa Najafzadeh, and Suresh Jagannathan. Alone together: compositional reasoning and inference for weak isolation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):27:1–27:??, January 2018. CODEN ????? ISSN 2475-1421.
- Khairunnesa:2017:EIB**
- [KNNR17] Samantha Syeda Khairunnesa, Hoan Anh Nguyen, Tien N. Nguyen, and Hridayesh Rajan. Exploiting implicit beliefs to resolve sparse usage problem in usage-based specification mining. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):83:1–83:??, October 2017. CODEN ????? ISSN 2475-1421.
- Kallas:2020:DDO**
- [KNSA20] Konstantinos Kallas, Filip Niksić, Caleb Stanford, and Rajeev Alur. DiffStream: differential output testing for stream processing programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):153:1–153:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428221>.
- Kang:2023:MCB**
- Chan Gu Kang and Hakjoo Oh. Modular component-based quantum circuit synthesis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1):87:1–87:??, April 2023. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586039>.
- Kodosky:2020:L**
- [Kod20] Jeffrey Kodosky. LabVIEW. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(HOPL):78:1–78:54, June 2020. URL <https://dl.acm.org/doi/abs/10.1145/3386328>.
- Kovacs:2020:EFC**
- [Kov20] András Kovács. Elaboration with first-class implicit function types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):101:1–101:29, August 2020. URL <https://dl.acm.org/doi/10.1145/3408983>.
- Kovacs:2022:SCT**
- [Kov22] András Kovács. Staged compilation with two-level type theory. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):110:1–110:??, August 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547641>.

- [KP18a] **Kalhauge:2018:SDP** Christian Gram Kalhauge and Jens Palsberg. Sound deadlock prediction. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):146:1–146:29, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276516>. **■**
- [KP18b] Ondřej Kunčar and Andrei Popescu. Safety and conservativity of definitions in HOL and Isabelle/HOL. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):24:1–24:??, January 2018. CODEN ????? ISSN 2475-1421.
- [KP22] **Kuncar:2018:SCD** Adam Husted Kjelstrøm and Andreas Pavlogiannis. The decidability and complexity of interleaved bidirected Dyck reachability. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):12:1–12:26, January 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498673>.
- [KPE18] **Keidel:2018:CSP** Sven Keidel, Casper Bach Poulsen, and Sebastian Erdweg. Compositional soundness proofs of abstract interpreters. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):72:1–72:26, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236767>. **■**
- [KPH22] **Kolesar:2022:CEN** John C. Kolesar, Ruzica Piskac, and William T. Hallahan. Checking equivalence in a non-strict language. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):177:1–177:??, October 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563340>.
- [KPP21] **Kuperberg:2021:CPS** Denis Kuperberg, Laureline Pinault, and Damien Pous. Cyclic proofs, system t, and the power of contraction. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):1:1–1:28, January 2021. URL <https://dl.acm.org/doi/10.1145/3434282>.
- [KPSJ19] **Kaki:2019:MRD** Gowtham Kaki, Swarn Priya, KC Sivaramakrishnan, and Suresh Jagannathan. Mergeable replicated data types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):154:1–154:29, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360580>. **■**
- [KPSL18] **Koppel:2018:OTM** James Koppel, Varot Premtoon, and Armando Solar-Lezama. One tool, many languages: language-parametric

- transformation with incremental parametric syntax. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (OOPSLA):122:1–122:28, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276492>. [KRV<sup>+</sup>21]
- Kiss:2018:GDG**
- [KPW18] Csongor Kiss, Matthew Pickering, and Nicolas Wu. Generic deriving of generic traversals. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):85:1–85:30, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236780>.
- Krauter:2021:PST** [KSG22]
- [KRB<sup>+</sup>21] Nicolas Krauter, Patrick Raaf, Peter Braam, Reza Salkhordeh, Sebastian Erdweg, and André Brinkmann. Persistent software transactional memory in Haskell. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):63:1–63:29, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473568>.
- Kokologiannakis:2019:ELH** [KSP22]
- [KRV19] Michalis Kokologiannakis, Azalea Raad, and Viktor Vafeiadis. Effective lock handling in stateless model checking. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (OOPSLA):173:1–173:26, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360599>.
- Koparkar:2021:ETT**
- Chaitanya Koparkar, Mike Rainey, Michael Vollmer, Milind Kulkarni, and Ryan R. Newton. Efficient tree-traversals: reconciling parallelism and dense data representations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):91:1–91:29, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473596>.
- K:2022:SCH**
- Hari Govind V. K., Sharon Shoham, and Arie Gurfinkel. Solving constrained Horn clauses modulo algebraic data types and recursive functions. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):60:1–60:29, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498722>.
- Kirisame:2022:OHL**
- Marisa Kirisame, Pranav Shenoy, and Pavel Panchekha. Optimal heap limits for reducing browser memory use. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA2):160:1–160:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563323>.

- [KSS20] **Kumar:2020:SRI**  
 Aayan Kumar, Vivek Sheshadri, and Rahul Sharma. Shiftry: RNN inference in 2KB of RAM. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):182:1–182:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428250>. [KTST23]
- [KSSL18] **Koppel:2018:CFR**  
 James Koppel, Gabriel Scherer, and Armando Solar-Lezama. Capturing the future by replaying the past (functional pearl). *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):76:1–76:29, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236771>. [KVT20]
- [KSTM20] **Kirkham:2020:FEM**  
 Jake Kirkham, Tyler Sorensen, Esin Tureci, and Margaret Martonosi. Foundations of empirical memory consistency testing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):226:1–226:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428294>. [KW21]
- [KSW18] **Krishna:2018:GFC**  
 Siddharth Krishna, Dennis Shasha, and Thomas Wies. Go with the flow: compositional abstractions for concurrent data structures. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):37:1–37:??, January 2018. CODEN ????. ISSN 2475-1421.
- Kobayashi:2023:HZV**  
 Naoki Kobayashi, Kento Tanahashi, Ryosuke Sato, and Takeshi Tsukada. HFL(Z) validity checking for automated program verification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):6:1–6:??, January 2023. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571199>.
- Kim:2020:DPF**  
 Sung Kook Kim, Arnaud J. Venet, and Aditya V. Thakur. Deterministic parallel fixpoint computation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):14:1–14:33, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371082>.
- Kidney:2021:AWS**  
 Donnacha Oisín Kidney and Nicolas Wu. Algebras for weighted search. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):72:1–72:30, August 2021. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473577>.

- [KWR<sup>+</sup>20] **Knoth:2020:LRT**  
 Tristan Knoth, Di Wang, Adam Reynolds, Jan Hoffmann, and Nadia Polikarpova. Liquid resource types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):106:1–106:29, August 2020. URL <https://dl.acm.org/doi/10.1145/3408988>.
- [KyKS22] **Kammar:2022:FAM**  
 Ohad Kammar, Shin ya Katsumata, and Philip Saville. Fully abstract models for effectful  $\lambda$ -calculi via category-theoretic logical relations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):44:1–44:28, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498705>.
- [KZA<sup>+</sup>23] **Kallas:2023:EMA**  
 Konstantinos Kallas, Haoran Zhang, Rajeev Alur, Sebastian Angel, and Vincent Liu. Executing microservice applications on serverless, correctly. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):13:1–13:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571206>.
- [KZK<sup>+</sup>18] **Kaiser:2018:MTT**  
 Jan-Oliver Kaiser, Beta Ziliani, Robbert Krebbers, Yann Régis-
- Gianas, and Derek Dreyer. Mtac2: typed tactics for backward reasoning in Coq. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):78:1–78:31, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236773>.
- [LA21] **Li:2021:DEP**  
 John M. Li and Andrew W. Appel. Deriving efficient program transformations from rewrite rules. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):74:1–74:29, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473579>.
- [LAF<sup>+</sup>20] **Le:2020:DDT**  
 Ton Chanh Le, Timos Antonopoulos, Parisa Fathololumi, Eric Koskinen, and ThanhVu Nguyen. DynamiTe: dynamic termination and non-termination proofs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):189:1–189:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428257>.
- [LAGN21] **Lim:2021:AGC**  
 Jay P. Lim, Mridul Aanjaneya, John Gustafson, and Santosh Nagarakatte. An approach to generate correctly rounded math libraries for new floating point variants. *Proceedings of the ACM on Programming Languages (PACMPL)*,

- 5(POPL):29:1–29:30, January 2021. URL <https://dl.acm.org/doi/10.1145/3434310>.
- [LB23] Sirui Lu and Rastislav Bodík. Grisette: Symbolic compilation as a functional programming library. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):16:1–16:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571209>.
- [LBR20] Vsevolod Livinskii, Dmitry Babokin, and John Regehr. Random testing for C and C++ compilers with YARP-Gen. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):196:1–196:25, November 2020. URL <https://dl.acm.org/doi/10.1145/3428264>.
- [LBCRK22] Amanda Liu, Gilbert Louis Bernstein, Adam Chlipala, and Jonathan Ragan-Kelley. Verified tensor-program optimization via high-level scheduling rewrites. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):55:1–55:28, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498717>.
- [LC21] Justin Lubin and Sarah E. Chasins. How statically-typed functional programmers write code. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):155:1–155:30, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485532>.
- [LBH<sup>+</sup>18] Roland Leißa, Klaas Boesche, Sebastian Hack, Arsène Pérard-Gayot, Richard Membarth, Philipp Slusallek, André Müller, and Bertil Schmidt. AnyDSL: a partial evaluation framework for programming high-performance libraries. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):119:1–119:30, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276489>.
- [LC23] Woosuk Lee and Hangyeol Cho. Inductive synthesis of structurally recursive functional programs from non-recursive expressions. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):70:1–70:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571263>.

**Lu:2023:GSC****Livinskii:2020:RTC****Liu:2022:VTP****Lubin:2021:HST****Leissa:2018:APE****Lee:2023:ISS**

- [LCOC20] Justin Lubin, Nick Collins, Cyrus Omar, and Ravi Chugh. Program sketching with live bidirectional evaluation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):109:1–109:29, August 2020. URL <https://dl.acm.org/doi/10.1145/3408991>. **Lubin:2020:PSL**
- [LCT<sup>+</sup>23] Zhengyao Lin, Xiaohong Chen, Minh-Thai Trinh, John Wang, and Grigore Roşu. Generating proof certificates for a language-agnostic deductive program verifier. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1):77:1–77:??, April 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586029>. **Lin:2023:GPC**
- [LCTS<sup>+</sup>20] Alexander K. Lew, Marco F. Cusumano-Towner, Benjamin Sherman, Michael Carbin, and Vikash K. Mansinghka. Trace types and denotational semantics for sound programmable inference in probabilistic languages. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):19:1–19:32, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371087>. **Lew:2020:TTD**
- [Lee21] Woosuk Lee. Combining the top-down propagation and bottom-up enumeration for inductive program synthesis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):54:1–54:28, January 2021. URL <https://dl.acm.org/doi/10.1145/3434335>. **Lee:2021:CTP**
- [Lem23] Matthieu Lemerre. SSA translation is an abstract interpretation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):65:1–65:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571258>. **Lemerre:2023:STA**
- [LF18] Hongjin Liang and Xinyu Feng. Progress of concurrent objects with partial methods. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):20:1–20:??, January 2018. CODEN ???? ISSN 2475-1421. **Liang:2018:PCO**
- [LFY<sup>+</sup>22] Hongming Liu, Hongfei Fu, Zhiyong Yu, Jiaxin Song, and Guoqiang Li. Scalable linear invariant generation with Farkas’ lemma. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):132:1–132:??, Oc-

- tober 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563295>. [LHC+23]
- [LGFD21] **Lazarek:2021:HEB**  
Lukas Lazarek, Ben Greenman, Matthias Felleisen, and Christos Dimoulas. How to evaluate blame for gradual types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):68:1–68:29, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473573>.
- [LGTS20] **Lagouvardos:2020:PSM**  
Sifis Lagouvardos, Neville Grech, Ilias Tsatiris, and Yanis Smaragdakis. Precise static modeling of Ethereum “memory”. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):190:1–190:26, November 2020. URL <https://dl.acm.org/doi/10.1145/3428258>.
- [LH22] **Liu:2022:SFI**  
Bozhen Liu and Jeff Huang. SHARP: fast incremental context-sensitive pointer analysis for Java. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):88:1–88:28, April 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527332>. [LHSM23]
- Lattuada:2023:VVR**  
Andrea Lattuada, Travis Hance, Chanhee Cho, Matthias Brun, Isitha Subasinghe, Yi Zhou, Jon Howell, Bryan Parno, and Chris Hawblitzel. Verus: Verifying Rust programs using linear ghost types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1):85:1–85:??, April 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586037>.
- [LHJ+18] **Lee:2018:RHL**  
Juneyoung Lee, Chung-Kil Hur, Ralf Jung, Zhengyang Liu, John Regehr, and Nuno P. Lopes. Reconciling high-level optimizations and low-level code in LLVM. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):125:1–125:28, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276495>.
- [LHP19] **Lampropoulos:2019:CGP**  
Leonidas Lampropoulos, Michael Hicks, and Benjamin C. Pierce. Coverage guided, property based testing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):181:1–181:29, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360607>.
- Lew:2023:ASA**  
Alexander K. Lew, Mathieu Huot, Sam Staton, and

- Vikash K. Mansinghka. ADEV: Sound automatic differentiation of expected values of probabilistic programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL): 5:1–5:??, January 2023. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571198>. [LL22]
- Licker:2020:DFO**
- [LJ20] Nandor Licker and Timothy M. Jones. Duplo: a framework for OCaml post-link optimisation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP): 98:1–98:29, August 2020. URL <https://dl.acm.org/doi/10.1145/3408980>. [LL23]
- LeGlaunec:2023:REM**
- [LKM23] Alexis Le Glaunec, Lingkun Kong, and Konstantinos Mamouras. Regular expression matching using bit vector automata. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1): 92:1–92:??, April 2023. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586044>. [LLB<sup>+</sup>20]
- Lazarek:2020:DBS**
- [LKS<sup>+</sup>20] Lukas Lazarek, Alexis King, Samanvitha Sundar, Robert Bruce Findler, and Christos Dimoulas. Does blame shifting work? *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 65:1–65:29, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371133>. [Lorenzen:2022:RCF]
- Anton Lorenzen and Daan Leijen. Reference counting with frame limited reuse. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):103:1–103:??, August 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547634>. [Leijen:2023:TRM]
- Daan Leijen and Anton Lorenzen. Tail recursion modulo context: an equational approach. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL): 40:1–40:??, January 2023. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571233>. [Liu:2020:TES]
- Fengyun Liu, Ondrej Lhoták, Aggelos Biboudis, Paolo G. Giarrusso, and Martin Odersky. A type-and-effect system for object initialization. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):175:1–175:28, November 2020. URL <https://dl.acm.org/doi/10.1145/3428243>.

- [LLSS22] Xuan-Bach Le, Shang-Wei Lin, Jun Sun, and David Sanan. A quantum interpretation of separating conjunction for local reasoning of quantum programs based on separation logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):36:1–36:27, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498697>.
- [LLZ<sup>+</sup>22] Jialin Li, Andrea Lattuada, Yi Zhou, Jonathan Cameron, Jon Howell, Bryan Parno, and Chris Hawblitzel. Linear types for large-scale systems verification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):69:1–69:28, April 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527313>.
- [LMM17a] Lun Liu, Todd Millstein, and Madanlal Musuvathi. A volatile-by-default JVM for server applications. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):49:1–49:??, October 2017. CODEN ???? ISSN 2475-1421.
- [LMM<sup>+</sup>17b] Cristina V. Lopes, Petr Maj, Pedro Martins, Vaibhav Saini, Di Yang, Jakub Zitny, Hitesh Sajjani, and Jan Vitek. DéjàVu: a map of code duplicates on GitHub. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):84:1–84:??, October 2017. CODEN ???? ISSN 2475-1421.
- [LMÖ<sup>+</sup>22] Si Liu, Jose Meseguer, Peter Csaba Ölveczky, Min Zhang, and David Basin. Bridging the semantic gap between qualitative and quantitative models of distributed systems. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):136:1–136:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563299>.
- [LMP18] Christof Löding, P. Madhusudan, and Lucas Peña. Foundations for natural proofs and quantifier instantiation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):10:1–10:??, January 2018. CODEN ???? ISSN 2475-1421.
- [LMZ19] Bert Lindenhovius, Michael Mislove, and Vladimir Zamdzhev. Mixed linear and non-

**Le:2022:QIS****Lopes:2017:DMC****Li:2022:LTL****Liu:2022:BSG****Loding:2018:FNP****Liu:2017:VDJ****Lindenhovius:2019:MLN**

- linear recursive types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):111:1–111:29, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341715>.
- Lim:2022:OPA**
- [LN22] Jay P. Lim and Santosh Narakatte. One polynomial approximation to produce correctly rounded results of an elementary function for multiple representations and rounding modes. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):3:1–3:28, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498664>.
- Lahav:2021:MWM**
- [LNO<sup>+</sup>21] Ori Lahav, Egor Namakonov, Jonas Oberhauser, Anton Podkopaev, and Viktor Vafeiadis. Making weak memory models fair. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):98:1–98:27, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485475>.
- Leobas:2020:SOD**
- [LP20] Guilherme Vieira Leobas and Fernando Magno Quintão Pereira. Semiring optimizations: dynamic elision of expressions with identity and absorbing elements. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):131:1–131:28, November 2020. URL <https://dl.acm.org/doi/10.1145/3428199>.
- Laddad:2022:KSC**
- [LPM<sup>+</sup>22] Shadaj Laddad, Conor Power, Mae Milano, Alvin Cheung, and Joseph M. Hellerstein. Katara: synthesizing CRDTs with verified lifting. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):173:1–173:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563336>.
- Lampropoulos:2018:GGG**
- [LPP18] Leonidas Lampropoulos, Zoe Paraskevopoulou, and Benjamin C. Pierce. Generating good generators for inductive relations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):45:1–45:??, January 2018. CODEN ???? ISSN 2475-1421.
- Liu:2020:VRD**
- [LPR<sup>+</sup>20] Yiyun Liu, James Parker, Patrick Redmond, Lindsey Kuper, Michael Hicks, and Niki Vazou. Verifying replicated data types with type-class refinements in Liquid Haskell. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):216:1–216:30, November 2020.

- URL <https://dl.acm.org/doi/10.1145/3428284>. **Lee:2023:SAP**
- [LRGC19] Nicholas V. Lewchenko, Arjun Radhakrishna, Akash Gaonkar, and Pavol Cerný. Sequential programming for replicated data stores. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):106:1–106:28, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341710>. **Lewchenko:2019:SPR** [LRY23]
- [LRS<sup>+</sup>20] Mengqi Liu, Lionel Rieg, Zhong Shao, Ronghui Gu, David Costanzo, Jung-Eun Kim, and Man-Ki Yoon. Virtual timeline: a formal abstraction for verifying preemptive schedulers with temporal isolation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):20:1–20:31, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371088>. **Liu:2020:VTF** [LS23]
- [LRV<sup>+</sup>22] Quang Loc Le, Azalea Raad, Jules Villard, Josh Berdine, Derek Dreyer, and Peter W. O’Hearn. Finding real bugs in big programs with incorrectness logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):81:1–81:27, April 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527325>. **Le:2022:FRB** [LSA18]
- Wonyeol Lee, Xavier Rival, and Hongseok Yang. Smoothness analysis for probabilistic programs with application to optimised variational inference. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):12:1–12:??, January 2023. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571205>. **Li:2023:AFT**
- Shaohua Li and Zhendong Su. Accelerating fuzzing through prefix-guided execution. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1):75:1–75:??, April 2023. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586027>. **Lee:2018:APC**
- Wonyeol Lee, Rahul Sharma, and Alex Aiken. On automatically proving the correctness of `math.h` implementations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):47:1–47:??, January 2018. CODEN ????. ISSN 2475-1421. **Liu:2022:CVT**
- [LSC<sup>+</sup>22] Mengqi Liu, Zhong Shao, Hao Chen, Man-Ki Yoon, and Jung-Eun Kim. Compositional virtual timelines: ver-

- ifying dynamic-priority partitions with algorithmic temporal isolation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA2):127:1–127:??, October 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563290>.
- [LSDZ22] Yuxiang Lei, Yulei Sui, Shuo Ding, and Qirun Zhang. Taming transitive redundancy for context-free language reachability. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):180:1–180:??, October 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563343>.
- [LSM<sup>+</sup>22] Rodolphe Lepigre, Michael Sammler, Kayvan Memarian, Robbert Krebbers, Derek Dreyer, and Peter Sewell. VIP: verifying real-world C idioms with integer-pointer casts. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):20:1–20:32, January 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498681>.
- [LSSO18] Junho Lee, Dowon Song, Sunbeom So, and Hakjoo Oh. Automatic diagnosis and correction of logical errors for functional programming assignments. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (OOPSLA):158:1–158:30, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276528>.
- [LSZ<sup>+</sup>20] Hongyu Liu, Sam Silvestro, Xiangyu Zhang, Jian Huang, and Tongping Liu. WATCHER: in-situ failure diagnosis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):143:1–143:27, November 2020. URL <https://dl.acm.org/doi/10.1145/3428211>.
- [LSZ22] Yuanbo Li, Kris Satya, and Qirun Zhang. Efficient algorithms for dynamic bidirected Dyck-reachability. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):62:1–62:29, January 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498724>.
- [LTMS18] Yue Li, Tian Tan, Anders Møller, and Yannis Smaragdakis. Precision-guided context sensitivity for pointer analysis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):141:1–141:29, October 2018. URL

Liu:2020:WSF

Lei:2022:TTR

Li:2022:EAD

Lepigre:2022:VVR

Li:2018:PGC

Lee:2018:ADC

- <https://dl.acm.org/doi/abs/10.1145/3276511>. **Li:2022:PAT**
- [LW22a] **Labrada:2022:PSG** Elizabeth Labrada, Matías Toro, Éric Tanter, and Dominio Devriese. Plausible sealing for gradual parametricity. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):70:1–70:28, April 2022. CODEN ????, ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527314>.
- [LW22b] **Li:2022:VCC** Liyi Li, Finn Voichick, Keshia Hietala, Yuxiang Peng, Xiaodi Wu, and Michael Hicks. Verified compilation of quantum oracles. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):146:1–146:??, October 2022. CODEN ????, ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563309>. **Loehr:2022:SMP**
- [LWNN19] **Li:2019:IBD** Devon Loehr and David Walker. Safe, modular packet pipeline programming. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):38:1–38:28, January 2022. CODEN ????, ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498699>.
- [LWUD21] **Li:2023:TPD** Jianlin Li, Leni Ven, Pengyuan Shi, and Yizhou Zhang. Type-preserving, dependence-aware guide generation for sound, effective amortized probabilistic inference. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):50:1–50:??, January 2023. CODEN ????, ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571243>. **Lanzinger:2021:SPC**
- [LVH<sup>+</sup>22] **Li:2022:VCC** Liyi Li, Finn Voichick, Keshia Hietala, Yuxiang Peng, Xiaodi Wu, and Michael Hicks. Verified compilation of quantum oracles. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):146:1–146:??, October 2022. CODEN ????, ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563309>. **Li:2019:IBD**
- [LVSZ23] **Li:2019:IBD** Yi Li, Shaohua Wang, Tien N. Nguyen, and Son Van Nguyen. Improving bug detection via context-based code representation learning and attention-based neural networks. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):162:1–162:30, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360588>.

- ductive verification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5 (OOPSLA):143:1–143:29, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485520>. [LY18]
- Lam:2020:LSL**
- [LWW<sup>+</sup>20] Wing Lam, Stefan Winter, Anjiang Wei, Tao Xie, Darko Marinov, and Jonathan Bell. A large-scale longitudinal study of flaky tests. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):202:1–202:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428270>. [LYB<sup>+</sup>19]
- Liu:2022:CGT**
- [LWY<sup>+</sup>22] Jiawei Liu, Yuxiang Wei, Sen Yang, Yinlin Deng, and Lingming Zhang. Coverage-guided tensor compiler fuzzing with joint IR-pass mutation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):73:1–73:26, April 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527317>. [LYRY20]
- Lu:2019:PPY**
- [LX19] Jingbo Lu and Jingling Xue. Precision-preserving yet fast object-sensitive pointer analysis with partial context sensitivity. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):148:1–148:29, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360574>. [Li:2018:AAT]
- Li:2018:AAT**
- Yangjia Li and Mingsheng Ying. Algorithmic analysis of termination problems for quantum programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):35:1–35:??, January 2018. CODEN ???? ISSN 2475-1421. [Luan:2019:ACR]
- Luan:2019:ACR**
- Sifei Luan, Di Yang, Celeste Barnaby, Koushik Sen, and Satish Chandra. Aroma: code recommendation via structural code search. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (OOPSLA):152:1–152:28, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360578>. [Lee:2020:TVS]
- Lee:2020:TVS**
- Wonyeol Lee, Hangyeol Yu, Xavier Rival, and Hongseok Yang. Towards verified stochastic variational inference for probabilistic programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):16:1–16:33, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371084>. [Laurel:2022:DNA]
- Laurel:2022:DNA**
- Jacob Laurel, Rem Yang, Gagandeep Singh, and Sasa Mi-

- sailovic. A dual number abstraction for static analysis of Clarke Jacobians. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):56:1–56:30, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498718>.
- [LYU<sup>+</sup>22] **Laurel:2022:GCA** Jacob Laurel, Rem Yang, Shubham Ugare, Robert Nagel, Gagandeep Singh, and Sasa Misailovic. A general construction for abstract interpretation of higher-order automatic differentiation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):161:1–161:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563324>.
- [LyXK<sup>+</sup>22] **Lesani:2022:CVT** Mohsen Lesani, Li yao Xia, Anders Kaseorg, Christian J. Bell, Adam Chlipala, Benjamin C. Pierce, and Steve Zdancewic. C4: verified transactional objects. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):80:1–80:31, April 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527324>.
- [LyXW21] **Li:2021:RAG** Yao Li, Li yao Xia, and Stephanie Weirich. Reasoning about the garden of forking paths. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):80:1–80:28, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473585>.
- [LZ17] **Li:2017:TPT** Xia Li and Lingming Zhang. Transforming programs and tests in tandem for fault localization. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):92:1–92:??, October 2017. CODEN ???? ISSN 2475-1421.
- [LZ18] **Li:2018:DFD** Peixuan Li and Danfeng Zhang. A derivation framework for dependent security label inference. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):115:1–115:26, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276485>.
- [LZR21] **Li:2021:CBI** Yuanbo Li, Qirun Zhang, and Thomas Reps. On the complexity of bidirected interleaved Dyck-reachability. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):59:1–59:28, January 2021. URL <https://dl.acm.org/doi/10.1145/3434340>.

- Li:2023:SSS**
- [LZR23] Yuanbo Li, Qirun Zhang, and Thomas Reps. Single-source-single-target interleaved-Dyck reachability via integer linear programming. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):35:1–35:??, January 2023. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571228>. [MAH18]
- Li:2020:PBR**
- [LZY<sup>+</sup>20] Gushu Li, Li Zhou, Nengkun Yu, Yufei Ding, Mingsheng Ying, and Yuan Xie. Projection-based runtime assertions for testing and debugging quantum programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):150:1–150:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428218>. [Mai17]
- Mendis:2018:GGO**
- [MA18] Charith Mendis and Saman Amarasinghe. goSLP: globally optimized superword level parallelism framework. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):110:1–110:28, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276480>. [MAN17]
- Maillard:2019:DMA**
- [MAA<sup>+</sup>19] Kenji Maillard, Danel Ahman, Robert Atkey, Guido Martínez, Cătălin Hrițcu, Exequiel Rivas, and Éric Tanter. Dijkstra monads for all. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):104:1–104:29, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341708>. [Muller:2018:CPG]
- Muller:2018:CPG**
- Stefan K. Muller, Umut A. Acar, and Robert Harper. Competitive parallelism: getting your priorities right. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):95:1–95:30, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236790>. [Mainland:2017:BLT]
- Mainland:2017:BLT**
- Geoffrey Mainland. Better living through operational semantics: an optimizing compiler for radio protocols. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):19:1–19:??, September 2017. CODEN ????? ISSN 2475-1421. [Mansky:2017:VMS]
- Mansky:2017:VMS**
- William Mansky, Andrew W. Appel, and Aleksey Nogin. A verified messaging system. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):87:1–87:??, October 2017. CODEN ????? ISSN 2475-1421. [Materzok:2022:GCG]
- Materzok:2022:GCG**
- Marek Materzok. Generating circuits with genera-

- tors. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP): 92:1–92:??, August 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3549821>.
- [MCF<sup>+</sup>22] Benjamin Mariano, Yanju Chen, Yu Feng, Greg Durrett, and Isil Dillig. Automated transpilation of imperative to functional code using neural-guided program synthesis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):71:1–71:27, April 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527315>.
- [MCL17] Kiwan Maeng, Alexei Colin, and Brandon Lucia. Alpaca: intermittent execution without checkpoints. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):96:1–96:??, October 2017. CODEN ????? ISSN 2475-1421.
- [MCP21] Denis Merigoux, Nicolas Chataing, and Jonathan Protzenko. Catala: a programming language for the law. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP): 77:1–77:29, August 2021. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473582>.
- [MCP23] Alexandre Moine, Arthur Charguéraud, and François Pottier. A high-level separation logic for heap space under garbage collection. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL): 25:1–25:??, January 2023. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571218>.
- [MDBL20] Suvam Mukherjee, Pantazis Deligiannis, Arpita Biswas, and Akash Lal. Learning-based controlled concurrency testing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):230:1–230:31, November 2020. URL <https://dl.acm.org/doi/10.1145/3428298>.
- [MDSM19] Ragnar Mogk, Joscha Drechsler, Guido Salvaneschi, and Mira Mezini. A fault-tolerant programming model for distributed interactive applications. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):144:1–144:29, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360570>.

**Mariano:2022:ATI****Moine:2023:HLS****Maeng:2017:AIE****Mukherjee:2020:LBC****Merigoux:2021:PCP****Mogk:2019:FTP**

- [ME17] J. Garrett Morris and Richard A. Eisenberg. Constrained type families. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):42:1–42:??, September 2017. CODEN ???? ISSN 2475-1421.
- [Mell19] Paul-André Mellies. Categorical combinatorics of scheduling and synchronization in game semantics. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):23:1–23:30, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290336>.
- [MEND22] Julian Mackay, Susan Eisenbach, James Noble, and Sophia Drossopoulou. Necessity specifications for robustness. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):154:1–154:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563317>.
- [MFP<sup>+</sup>18] Anders Miltner, Kathleen Fisher, Benjamin C. Pierce, David Walker, and Steve Zdancewic. Synthesizing bijective lenses. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):1:1–1:??, January 2018. CODEN ???? ISSN 2475-1421.
- [MGB<sup>+</sup>23] Alexandra E. Michael, Anitha Gollamudi, Jay Bosamiya, Evan Johnson, Aidan Denlinger, Craig Disselkoben, Conrad Watt, Bryan Parno, Marco Patrignani, Marco Vassena, and Deian Stefan. MSWasm: Soundly enforcing memory-safe execution of unsafe code. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):15:1–15:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571208>.
- [MGL<sup>+</sup>19] Anders Miltner, Sumit Gulwani, Vu Le, Alan Leung, Arjun Radhakrishna, Gustavo Soares, Ashish Tiwari, and Abhishek Udupa. On the fly synthesis of edit suggestions. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):143:1–143:29, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360569>.
- [MGT21] Stefan Malewski, Michael Greenberg, and Éric Tanter. Gradually structured data. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):126:1–126:29, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485503>.

- [MH21] **Muller:2021:MAE**  
 Stefan K. Muller and Jan Hoffmann. Modeling and analyzing evaluation cost of CUDA kernels. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):25:1–25:31, January 2021. URL <https://dl.acm.org/doi/10.1145/3434306>.
- [MHLG23] **Menz:2023:CSD**  
 Jan Menz, Andrew K. Hirsch, Peixuan Li, and Deepak Garg. Compositional security definitions for higher-order where declassification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1):89:1–89:??, April 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586041>.
- [MHN19] **Mastrangelo:2019:CAD**  
 Luis Mastrangelo, Matthias Hauswirth, and Nathaniel Nystrom. Casting about in the dark: an empirical study of cast operations in Java programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):158:1–158:31, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360584>.
- [MHR20] **MacQueen:2020:HSM**  
 David MacQueen, Robert Harper, and John Reppy. The history of Standard ML. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(HOPL):86:1–86:100, June 2020. URL <https://dl.acm.org/doi/abs/10.1145/3386336>.
- [MHRV20] **Maillard:2020:NRP**  
 Kenji Maillard, Catalin Hritcu, Exequiel Rivas, and Antoine Van Muylder. The next 700 relational program logics. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):4:1–4:33, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371072>.
- [Mil20] **Milanova:2020:FGT**  
 Ana Milanova. FlowCFL: generalized type-based reachability analysis: graph reduction and equivalence of CFL-based and type-based reachability. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):178:1–178:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428246>.
- [MJ20] **Montagu:2020:SRA**  
 Benoît Montagu and Thomas Jensen. Stable relations and abstract interpretation of higher-order programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):119:1–119:30, August 2020. URL <https://dl.acm.org/doi/10.1145/3409001>.

- [MJ21] **Mevel:2021:FVC**  
 Glen Mével and Jacques-Henri Jourdan. Formal verification of a concurrent bounded queue in a weak memory model. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):66:1–66:29, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473571>.
- [MJ22] **Mishra:2022:SGC**  
 Ashish Mishra and Suresh Jagannathan. Specification-guided component-based synthesis from effectful libraries. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):147:1–147:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563310>.
- [MJK<sup>+</sup>17] **Midtgaard:2017:EDQ**  
 Jan Midtgaard, Mathias Nygaard Justesen, Patrick Kastning, Flemming Nielson, and Hanne Riis Nielson. Effect-driven QuickChecking of compilers. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):15:1–15:??, September 2017. CODEN ???? ISSN 2475-1421.
- [MJP20] **Mevel:2020:CCS**  
 Glen Mével, Jacques-Henri Jourdan, and François Pottier. Cosmo: a concurrent separation logic for multicore OCaml. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):96:1–96:29, August 2020. URL <https://dl.acm.org/doi/10.1145/3408978>.
- [MK23] **Mulder:2023:PAL**  
 Ike Mulder and Robbert Krebbers. Proof automation for linearizability in separation logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1):91:1–91:??, April 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586043>.
- [MKC18] **Mayer:2018:BED**  
 Mikaël Mayer, Viktor Kuncak, and Ravi Chugh. Bidirectional evaluation with direct manipulation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):127:1–127:28, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276497>.
- [MKLR20] **Mukherjee:2020:DBP**  
 Manasij Mukherjee, Pranav Kant, Zhengyang Liu, and John Regehr. Dataflow-based pruning for speeding up superoptimization. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):177:1–177:24, November 2020. URL <https://dl.acm.org/doi/10.1145/3428245>.

- Machiry:2022:CCC**
- [MKM<sup>+</sup>22] Aravind Machiry, John Kastner, Matt McCutchen, Aaron Eline, Kyle Headley, and Michael Hicks. C to checked C by 3C. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA1):78:1–78:29, April 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527322>.
- Mazinanian:2017:UUL**
- [MKTD17] Davood Mazinanian, Ameya Ketkar, Nikolaos Tsantalis, and Danny Dig. Understanding the use of lambda expressions in Java. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):85:1–85:??, October 2017. CODEN ???? ISSN 2475-1421.
- Mathur:2018:WHA**
- [MKV18] Umang Mathur, Dileep Kini, and Mahesh Viswanathan. What happens — after the first race? Enhancing the predictive power of happens-before based dynamic race detection. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):145:1–145:29, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276515>.
- Moiseenko:2022:MCM**
- [MKV22] Evgenii Moiseenko, Michalis Kokologiannakis, and Viktor Vafeiadis. Model checking for a multi-execution memory model. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA2):152:1–152:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563315>.
- Madsen:2020:FMP**
- [ML20a] Magnus Madsen and Ondrej Lhoták. Fixpoints for the masses: programming with first-class Datalog constraints. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):125:1–125:28, November 2020. URL <https://dl.acm.org/doi/10.1145/3428193>.
- Moler:2020:HM**
- [ML20b] Cleve Moler and Jack Little. A history of MATLAB. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (HOPL):81:1–81:67, June 2020. URL <https://dl.acm.org/doi/abs/10.1145/3386331>.
- Margalit:2021:VOR**
- [ML21] Roy Margalit and Ori Lahav. Verifying observational robustness against a C11-style memory model. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):4:1–4:33, January 2021. URL <https://dl.acm.org/doi/10.1145/3434285>.

- Maillard:2022:RGT**
- [MLBTT22] Kenji Maillard, Meven Lennon-Bertrand, Nicolas Tabareau, and Éric Tanter. A reasonably gradual type theory. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):124:1–124:??, August 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547655>.
- Mokhov:2019:SAF**
- [MLMD19] Andrey Mokhov, Georgy Lukyanov, Simon Marlow, and Jeremie Dimino. Selective applicative functors. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):90:1–90:29, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341694>.
- Madsen:2017:MRA**
- [MLT17] Magnus Madsen, Ondrej Lhoták, and Frank Tip. A model for reasoning about JavaScript promises. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):86:1–86:??, October 2017. CODEN ???? ISSN 2475-1421.
- Morris:2019:AED**
- [MM19] J. Garrett Morris and James McKinna. Abstracting extensible data types: or, rows by any other name. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):12:1–12:28, January 2019.
- Maina:2018:SQL**
- [MMF<sup>+</sup>18] Solomon Maina, Anders Miltner, Kathleen Fisher, Benjamin C. Pierce, David Walker, and Steve Zdancewic. Synthesizing quotient lenses. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):80:1–80:29, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236775>.
- Miltner:2019:SSL**
- [MMF<sup>+</sup>19] Anders Miltner, Solomon Maina, Kathleen Fisher, Benjamin C. Pierce, David Walker, and Steve Zdancewic. Synthesizing symmetric lenses. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):95:1–95:28, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341699>.
- Mokhov:2018:BSC**
- [MMJ18] Andrey Mokhov, Neil Mitchell, and Simon Peyton Jones. Build systems à la carte. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):79:1–79:29, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236774>.
- Mathur:2020:DMS**
- [MMK<sup>+</sup>20] Umang Mathur, Adithya Murali, Paul Krogmeier, P. Madhusudan, and Mahesh Viswanathan. Deciding memory safety for single-pass heap-manipulating
- URL <https://dl.acm.org/doi/abs/10.1145/3290325>.

- programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 35:1–35:29, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371103>.
- [MMKK18] Annabelle McIver, Carroll Morgan, Benjamin Lucien Kaminski, and Joost-Pieter Katoen. A new proof rule for almost-sure termination. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL): 33:1–33:??, January 2018. CODEN ???? ISSN 2475-1421.
- [MMS<sup>+</sup>22] Mark Niklas Müller, Gleb Makarchuk, Gagandeep Singh, Markus Püschel, and Martin Vechev. PRIMA: general and precise neural network certification via scalable convex hull approximations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):43:1–43:33, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498704>.
- [MN18] Rupak Majumdar and Filip Nikić. Why is random testing effective for partition tolerance bugs? *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL): 46:1–46:??, January 2018. CODEN ???? ISSN 2475-1421.
- [MNB<sup>+</sup>22] Anders Miltner, Adrian Trejo Nuñez, Ana Brendel, Swarat Chaudhuri, and Isil Dillig. Bottom-up synthesis of recursive functional programs using angelic execution. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):21:1–21:29, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498682>.
- [MNT20] Anders Møller, Benjamin Barslev Nielsen, and Martin Toldam Torp. Detecting locations in JavaScript programs affected by breaking library changes. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA): 187:1–187:25, November 2020. URL <https://dl.acm.org/doi/10.1145/3428255>.
- [MNTHV21] Cameron Moy, Phức C. Nguyễn, Sam Tobin-Hochstadt, and David Van Horn. Corpse re-iver: sound and efficient gradual typing via contract verification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL): 53:1–53:28, January 2021. URL <https://dl.acm.org/doi/10.1145/3434334>.
- [MOP21] Angélica Aparecida Moreira,

**Miltner:2022:BSR****McIver:2018:NPR****Moller:2020:DLJ****Muller:2022:PGP****Moy:2021:CRS****Majumdar:2018:WRT****Moreira:2021:PVS**

- Guilherme Ottoni, and Fernando Magno Quintão Pereira. VESPA: static profiling for binary optimization. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):144:1–144:28, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485521>. [MP21a]
- Akimasa Morihata. Lambda calculus with algebraic simplification for reduction parallelization by equational reasoning. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):80:1–80:25, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341644>. [Mor19]
- Hernán Melgratti and Luca Padovani. Chaperone contracts for higher-order sessions. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):35:1–35:??, September 2017. CODEN ???? ISSN 2475-1421. [MP17]
- Zeina Migeed and Jens Palsberg. What is decidable about gradual types? *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):29:1–29:29, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371097>. [MP20]
- Anders Alnor Mathiasen and Andreas Pavlogiannis. The fine-grained and parallel complexity of Andersen’s pointer analysis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):34:1–34:29, January 2021. URL <https://dl.acm.org/doi/10.1145/3434315>. **Mathiasen:2021:FGP**
- Damiano Mazza and Michele Pagani. Automatic differentiation in PCF. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):28:1–28:27, January 2021. URL <https://dl.acm.org/doi/10.1145/3434309>. **Mazza:2021:ADP**
- Jean-Marie Madiot and François Pottier. A separation logic for heap space under garbage collection. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):11:1–11:28, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498672>. **Madiot:2022:SLH**
- Julian Mackay, Alex Potanin, Jonathan Aldrich, and Lindsay Groves. Decidable subtyping for path dependent types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): [MPAG20]
- Morihata:2019:LCA**
- Melgratti:2017:CCH** [MP22]
- Migeed:2020:WDA**
- Mackay:2020:DSP**

- 66:1–66:27, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371134>.
- Murali:2022:MGS**
- [MPB<sup>+</sup>22] Adithya Murali, Lucas Peña, Eion Blanchard, Christof Löding, and P. Madhusudan. Model-guided synthesis of inductive lemmas for FOL with least fixpoints. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA2):191:1–191:??, October 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563354>.
- Mazza:2018:PAF**
- [MPV18] Damiano Mazza, Luc Pellissier, and Pierre Vial. Polyadic approximations, fibrations and intersection types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):6:1–6:??, January 2018. CODEN ????. ISSN 2475-1421.
- Mathur:2021:OPS**
- [MPV21] Umang Mathur, Andreas Pavlogiannis, and Mahesh Viswanathan. Optimal prediction of synchronization-preserving races. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):36:1–36:29, January 2021. URL <https://dl.acm.org/doi/10.1145/3434317>.
- Muduli:2022:SMF**
- [MR22] Sujit Kumar Muduli and Subhajit Roy. Satisfiability modulo fuzzing: a synergistic combination of SMT solving and fuzzing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA2):169:1–169:??, October 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563332>.
- Melo:2018:ISS**
- [MRdAP18] Leandro T. C. Melo, Rodrigo G. Ribeiro, Marcus R. de Araújo, and Fernando Magno Quintão Pereira. Inference of static semantics for incomplete C programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):29:1–29:??, January 2018. CODEN ????. ISSN 2475-1421.
- Meier:2018:VMD**
- [MRG18] Remigius Meier, Armin Rigo, and Thomas R. Gross. Virtual machine design for parallel dynamic programming languages. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):109:1–109:25, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276479>.
- Mariano:2019:PSA**
- [MRX<sup>+</sup>19] Benjamin Mariano, Josh Reese, Siyuan Xu, ThanhVu Nguyen, Xiaokang Qiu, Jeffrey S. Foster, and Armando Solar-Lezama. Program synthesis with algebraic library specifications. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3

- (OOPSLA):132:1–132:25, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360558>.  
**Miraldo:2019:EAT**
- [MS19] Victor Cacciari Miraldo and Wouter Swierstra. An efficient algorithm for type-safe structural diffing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):113:1–113:29, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341717>.  
**Monnier:2020:EEL**
- [MS20] Stefan Monnier and Michael Sperber. Evolution of Emacs Lisp. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(HOPL):74:1–74:55, June 2020. URL <https://dl.acm.org/doi/abs/10.1145/3386324>.  
**Moosbrugger:2022:MPL**
- [MSBK22] Marcel Moosbrugger, Miroslav Stanković, Ezio Bartocci, and Laura Kovács. This is the moment for probabilistic loops. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):178:1–178:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563341>.  
**Muller:2023:BDS**
- [MSBO23] Marius Müller, Philipp Schuster, Jonathan Immanuel Brachthäuser, and Klaus Ostermann. Back to direct style: Typed and tight. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1):104:1–104:??, April 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586056>.  
**Marntirosian:2020:RIS**
- [MSdSOK20] Koar Marntirosian, Tom Schrijvers, Bruno C. d. S. Oliveira, and Georgios Karachalias. Resolution as intersection subtyping via modus ponens. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):206:1–206:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428274>.  
**Miyazaki:2019:DTI**
- [MSI19] Yusuke Miyazaki, Taro Sekiyama, and Atsushi Igarashi. Dynamic type inference for gradual Hindley–Milner typing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):18:1–18:29, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290331>.  
**Meuli:2020:EAA**
- [MSRH20] Giulia Meuli, Mathias Soeken, Martin Roetteler, and Thomas Häner. Enabling accuracy-aware quantum compilers using symbolic resource estimation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):130:1–130:26, November 2020. URL <https://dl.acm.org/doi/10.1145/3428198>.

- [MT17] **Muehlboeck:2017:SGT**  
 Fabian Muehlboeck and Ross Tate. Sound gradual typing is nominally alive and well. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):56:1–56:??, October 2017. CODEN ???? ISSN 2475-1421.
- [MT18] **Muehlboeck:2018:EUI**  
 Fabian Muehlboeck and Ross Tate. Empowering union and intersection types with integrated subtyping. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (OOPSLA):112:1–112:29, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276482>.
- [MT21] **Muehlboeck:2021:TSN**  
 Fabian Muehlboeck and Ross Tate. Transitioning from structural to nominal code with efficient gradual typing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5 (OOPSLA):127:1–127:29, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485504>.
- [MTDC19] **Marcozzi:2019:CFH**  
 Michaël Marcozzi, Qiyi Tang, Alastair F. Donaldson, and Cristian Cadar. Compiler fuzzing: how much does it matter? *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (OOPSLA):155:1–155:29, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360581>.
- [Mul22] **Muller:2022:SPP**  
 Stefan K. Muller. Static prediction of parallel computation graphs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):46:1–46:31, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498708>.
- [MV19] **Mogelberg:2019:BPT**  
 Rasmus Ejlers Møgelberg and Niccolò Veltri. Bisimulation as path type for guarded recursive types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):4:1–4:29, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290317>.
- [MV20] **Moller:2020:EO**  
 Anders Møller and Oskar Haarklou Veileborg. Eliminating abstraction overhead of Java stream pipelines using ahead-of-time program optimization. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):168:1–168:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428236>.
- [MvdP20] **Madsen:2020:PTE**  
 Magnus Madsen and Jacob van de Pol. Polymor-

- phic types and effects with Boolean unification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):154:1–154:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428222>. [MWA19]
- Madsen:2021:RNT**
- [MvdP21] Magnus Madsen and Jaco van de Pol. Relational nullable types with Boolean unification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):110:1–110:28, October 2021. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485487>. [MWW22]
- Matsuda:2020:SLP**
- [MW20a] Kazutaka Matsuda and Meng Wang. Sparcl: a language for partially-invertible computation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):118:1–118:31, August 2020. URL <https://dl.acm.org/doi/10.1145/3409000>. [MYZ20]
- Meyer:2020:PLC**
- [MW20b] Roland Meyer and Sebastian Wolff. Pointer life cycle types for lock-free data structures with memory reclamation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):68:1–68:36, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371136>. [NA18]
- Muller:2019:FRP**
- Stefan K. Muller, Sam Westrick, and Umut A. Acar. Fairness in responsive parallelism. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (ICFP):81:1–81:30, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341685>.
- Meyer:2022:CPL**
- Roland Meyer, Thomas Wies, and Sebastian Wolff. A concurrent program logic with a future and history. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA2):174:1–174:??, October 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563337>.
- Majumdar:2020:MMC**
- Rupak Majumdar, Nobuko Yoshida, and Damien Zufferey. Multiparty motion coordination: from choreographies to robotics programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):134:1–134:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428202>.
- New:2018:GEP**
- Max S. New and Amal Ahmed. Graduality from embedding-projection pairs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (ICFP):73:1–73:30, July 2018.

- URL <https://dl.acm.org/doi/abs/10.1145/3236768>.
- [NAJ+20] Julie L. Newcomb, Andrew Adams, Steven Johnson, Rastislav Bodik, and Shoaib Kamil. Verifying and improving Halide’s term rewriting system with program synthesis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):166:1–166:28, November 2020. URL <https://dl.acm.org/doi/10.1145/3428234>.
- [NBDF19] Aleksandar Nanevski, Anindya Banerjee, Germán Andrés Delbianco, and Ignacio Fábregas. Specifying concurrent programs in separation logic: morphisms and simulations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (OOPSLA):161:1–161:30, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360587>.
- [NBP+18] Francesco Zappa Nardelli, Julia Belyakova, Artem Pelenitsyn, Benjamin Chung, Jeff Bezanson, and Jan Vitek. Julia subtyping: a rational reconstruction. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (OOPSLA):113:1–113:27, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276483>.
- [NcS17] Praveen Narayanan and Chung-chieh Shan. Symbolic conditioning of arrays in probabilistic programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1 (ICFP):11:1–11:??, September 2017. CODEN ???? ISSN 2475-1421.
- [NDA+19] Joseph P. Near, David Darais, Chike Abuah, Tim Stevens, Pranav Gaddamadugu, Lun Wang, Neel Somani, Mu Zhang, Nikhil Sharma, Alex Shan, and Dawn Song. Duet: an expressive higher-order language and linear type system for statically enforcing differential privacy. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (OOPSLA):172:1–172:30, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360598>.
- [NGR+22] Abel Nieto, Léon Gondelman, Alban Reynaud, Amin Timany, and Lars Birkedal. Modular verification of op-based CRDTs in separation logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA2):188:1–188:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563351>.

- [NGTHV18] **Nguyen:2018:SCV** Phúc C. Nguyễn, Thomas Gilray, Sam Tobin-Hochstadt, and David Van Horn. Soft contract verification for higher-order stateful programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):51:1–51:??, January 2018. CODEN ???? ISSN 2475-1421.
- [NJA20] **New:2020:GPT** Max S. New, Dustin Jamner, and Amal Ahmed. Graduality and parametricity: together again for the first time. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):46:1–46:32, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371114>.
- [NLA19] **New:2019:GTT** Max S. New, Daniel R. Licata, and Amal Ahmed. Gradual type theory. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):15:1–15:31, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290328>.
- [NPZ<sup>+</sup>20] **Nguyen:2022:MPM** Minh Nguyen, Roly Perera, Meng Wang, and Nicolas Wu. Modular probabilistic models via algebraic effects. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):104:1–104:??, August 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547635>.
- [NPZ<sup>+</sup>20] **Nie:2020:UEI** Pengyu Nie, Marinela Parovic, Zhiqiang Zang, Sarfraz Khurshid, Aleksandar Milicevic, and Milos Gligoric. Unifying execution of imperative generators and declarative specifications. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):217:1–217:26, November 2020. URL <https://dl.acm.org/doi/10.1145/3428285>.
- [NSGH22] **Niu:2022:CAL** Yue Niu, Jonathan Sterling, Harrison Grodin, and Robert Harper. A cost-aware logical framework. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):9:1–9:31, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498670>.
- [NVD17] **Nuyts:2017:PQD** Andreas Nuyts, Andrea Vezzosi, and Dominique Devriese. Parametric quantifiers for dependent type theory. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):32:1–32:??, September 2017. CODEN ???? ISSN 2475-1421.

- Nandi:2018:FPC**
- [NWP<sup>+</sup>18] Chandrakana Nandi, James R. Wilcox, Pavel Panchekha, Taylor Blau, Dan Grossman, and Zachary Tatlock. Functional programming for compiling and decompiling computer-aided design. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):99:1–99:31, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236794>.
- Nandi:2021:RRI**
- [NWZ<sup>+</sup>21] Chandrakana Nandi, Max Willsey, Amy Zhu, Yisu Remy Wang, Brett Saiki, Adam Anderson, Adriana Schulz, Dan Grossman, and Zachary Tatlock. Rewrite rule inference using equality saturation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):119:1–119:28, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485496>.
- Omar:2018:RPL**
- [OA18] Cyrus Omar and Jonathan Aldrich. Reasonably programmable literal notation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):106:1–106:32, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236801>.
- Odersky:2018:SFA**
- [OBL<sup>+</sup>18] Martin Odersky, Olivier Blanvilain, Fengyun Liu, Agge- los Biboudis, Heather Miller, and Sandro Stucki. Simply: foundations and applications of implicit function types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):42:1–42:??, January 2018. CODEN ???? ISSN 2475-1421.
- Ostermann:2022:IEL**
- [OBS<sup>+</sup>22] Klaus Ostermann, David Binder, Ingo Skupin, Tim Süberkrüb, and Paul Downen. Introduction and elimination, left and right. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):106:1–106:??, August 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547637>.
- Orchard:2017:VSP**
- [OCDR17] Dominic Orchard, Mistral Contrastin, Matthew Danish, and Andrew Rice. Verifying spatial properties of array computations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):75:1–75:??, October 2017. CODEN ???? ISSN 2475-1421.
- Ou:2018:TUC**
- Peizhao Ou and Brian Demsky. Towards understanding the costs of avoiding out-of-thin-air results. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):136:1–136:29, Octo-

- ber 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276506>.  
**O'Hearn:2020:IL**
- [O'H20] Peter W. O'Hearn. Incorrectness logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):10:1–10:32, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371078>.  
**Ott:2018:BPS**
- [OLC+18] Jason Ott, Tyson Loveless, Chris Curtis, Mohsen Lesani, and Philip Brisk. BioScript: programming safe chemistry on laboratories-on-a-chip. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):128:1–128:31, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276498>.  
**Orchard:2019:QPR**
- [OLE19] Dominic Orchard, Vilem-Benjamin Liepelt, and Harley Eades III. Quantitative program reasoning with graded modal types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):110:1–110:30, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341714>.  
**Ozkan:2018:RTD**
- [OMN+18] Burcu Kulahcioglu Ozkan, Rupak Majumdar, Filip Nikić, Mitra Tabaei Befrouei, and Georg Weissenbacher. Randomized testing of distributed systems with probabilistic guarantees. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):160:1–160:28, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276530>.  
**Ozkan:2019:TAR**
- [OMO19] Burcu Kulahcioglu Ozkan, Rupak Majumdar, and Simin Oraee. Trace aware random testing for distributed systems. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):180:1–180:29, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360606>.  
**Ohman:2022:VRC**
- [ÖN22] Joakim Öhman and Aleksandar Nanevski. Visibility reasoning for concurrent snapshot algorithms. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):33:1–33:30, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498694>.  
**Owens:2017:VEF**
- [ONK+17] Scott Owens, Michael Norrish, Ramana Kumar, Magnus O. Myreen, and Yong Kiam Tan. Verifying efficient function calls in CakeML. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):18:1–18:??, September 2017. CODEN ???? ISSN 2475-1421.

- [OUM18] **Ohori:2018:FPO** Atsushi Ohori, Katsuhiko Ueno, and Hisayuki Mima. Finitary polymorphism for optimizing type-directed compilation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):81:1–81:29, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236776>.
- [OVCH19] **Omar:2019:LFP** Cyrus Omar, Ian Voysey, Ravi Chugh, and Matthew A. Hammer. Live functional programming with typed holes. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):14:1–14:32, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290327>.
- [PA19a] **Paraskevopoulou:2019:CCS** Zoe Paraskevopoulou and Andrew W. Appel. Closure conversion is safe for space. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):83:1–83:29, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341687>.
- [PA19b] **Patterson:2019:NCC** Daniel Patterson and Amal Ahmed. The next 700 compiler correctness theorems (functional pearl). *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):85:1–85:29, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341689>.
- [Par20] **Parreaux:2020:SEA** Lionel Parreaux. The simple essence of algebraic subtyping: principal type inference with subtyping made easy (functional pearl). *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):124:1–124:28, August 2020. URL <https://dl.acm.org/doi/10.1145/3409006>.
- [Pav20] **Pavlogiannis:2020:FSE** Andreas Pavlogiannis. Fast, sound, and effectively complete dynamic race prediction. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):17:1–17:29, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371085>.
- [PBC<sup>+</sup>21] **Pelenitsyn:2021:TSJ** Artem Pelenitsyn, Julia Belyakova, Benjamin Chung, Ross Tate, and Jan Vitek. Type stability in Julia: avoiding performance pathologies in JIT compilation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):150:1–150:26, October 2021. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485527>.
- [PBS<sup>+</sup>17] **Papadakis:2017:SPS** Manolis Papadakis, Gilbert Louis Bernstein, Rahul Sharma, Alex Aiken, and Pat Hanrahan. Seam: provably safe local



- and operational models for ARMv8. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL): 19:1–19:??, January 2018. CODEN ???? ISSN 2475-1421. [PH21]
- Paraskevopoulou:2021:CCC**
- [PG21] Zoe Paraskevopoulou and Anvay Grover. Compiling with continuations, correctly. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):114:1–114:29, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485491>. [PHL<sup>+</sup>18]
- Poesia:2017:SPC**
- [PGFP17] Gabriel Poesia, Breno Guimarães, Fabrício Ferracioli, and Fernando Magno Quintão Pereira. Static placement of computation on heterogeneous devices. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):50:1–50:??, October 2017. CODEN ???? ISSN 2475-1421. [PHSR19]
- Peleg:2020:PRE**
- [PGIY20] Hila Peleg, Roi Gabay, Shachar Itzhaky, and Eran Yahav. Programming with a read-eval-synth loop. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):159:1–159:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428227>. [PHXD19]
- Pickard:2021:CDT**
- Mitchell Pickard and Graham Hutton. Calculating dependently-typed compilers (functional pearl). *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):82:1–82:27, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473587>.
- Padon:2018:RLS**
- Oded Padon, Jochen Hoenicke, Giuliano Losa, Andreas Podelski, Mooly Sagiv, and Sharon Shoham. Reducing liveness to safety in first-order logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL): 26:1–26:??, January 2018. CODEN ???? ISSN 2475-1421.
- Park:2019:PSM**
- Gyunghee Park, Jaemin Hong, Guy L. Steele Jr., and Sukyoung Ryu. Polymorphic symmetric multiple dispatch with variance. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL): 11:1–11:28, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290324>.
- Pan:2019:ARR**
- Rong Pan, Qinheping Hu, Gaowei Xu, and Loris D’Antoni. Automatic repair of regular expressions. *Proceedings*

- of the ACM on Programming Languages (PACMPL), 3 (OOPSLA):139:1–139:29, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360565>.  
**Pitts:2023:LNS**
- [Pit23] Andrew M. Pitts. Locally nameless sets. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):17:1–17:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571210>.
- Paszke:2021:GPI**
- [PJD<sup>+</sup>21] Adam Paszke, Daniel D. Johnson, David Duvenaud, Dimitrios Vytiniotis, Alexey Radul, Matthew J. Johnson, Jonathan Ragan-Kelley, and Dougal Maclaurin. Getting to the point: index sets and parallelism-preserving autodiff for pointful array programming. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):88:1–88:29, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473593>.
- Padhi:2018:FFS**
- [PJP<sup>+</sup>18] Saswat Padhi, Prateek Jain, Daniel Perelman, Oleksandr Polozov, Sumit Gulwani, and Todd Millstein. FlashProfile: a framework for synthesizing data profiles. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (OOPSLA):150:1–150:28, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276520>.  
**Patel:2021:VCM**
- [PKSW21] Nisarg Patel, Siddharth Krishna, Dennis Shasha, and Thomas Wies. Verifying concurrent multicopy search structures. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):113:1–113:32, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485490>.
- Pombrio:2017:IST**
- [PKW17] Justin Pombrio, Shriram Krishnamurthi, and Mitchell Wand. Inferring scope through syntactic sugar. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):44:1–44:??, September 2017. CODEN ???? ISSN 2475-1421.
- Paraskevopoulou:2021:COC**
- [PLA21] Zoe Paraskevopoulou, John M. Li, and Andrew W. Appel. Compositional optimizations for CertiCoq. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):86:1–86:30, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473591>.
- Padhye:2019:FDS**
- [PLS<sup>+</sup>19] Rohan Padhye, Caroline Lemieux, Koushik Sen, Laurent Si-

- mon, and Hayawardh Vijayakumar. FuzzFactory: domain-specific fuzzing with waypoints. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):174:1–174:29, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360600>. [PN17]
- [PLSS17] Oded Padon, Giuliano Losa, Mooly Sagiv, and Sharon Shoham. Paxos made EPR: decidable reasoning about distributed protocols. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):108:1–108:??, October 2017. CODEN ???? ISSN 2475-1421.
- [PMD21] Marco Patrignani, Eric Mark Martin, and Dominique Devriese. On the semantic expressiveness of recursive types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):21:1–21:29, January 2021. URL <https://dl.acm.org/doi/10.1145/3434302>.
- [PMS<sup>+</sup>23] Christopher Pulte, Dhruv C. Makwana, Thomas Sewell, Kayvan Memarian, Peter Sewell, and Neel Krishnaswami. CN: Verifying systems C code with separation-logic refinement types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):1:1–1:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571194>.
- [PNPWW22] Roly Perera, Minh Nguyen, Tomas Petricek, and Meng Wang. Linked visualisations via Galois dependencies. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):7:1–7:29, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498668>.
- [PNWT22] Sorawee Porncharoenwase, Luke Nelson, Xi Wang, and Emina Torlak. A formal foundation for symbolic evaluation with merging. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):47:1–47:28, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498709>.

**Perez:2017:TDF**

**Perera:2022:LVG**

**Padon:2017:PME**

**Patrignani:2021:SER**

**Pulte:2023:CVS**

**Porncharoenwase:2022:FFS**

- [Pot17] François Pottier. Visitors unchained. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP): 28:1–28:??, September 2017. CODEN ????? ISSN 2475-1421. **Pottier:2017:VU**
- [PP20] Gabriel Poesia and Fernando Magno Quintão Pereira. Dynamic dispatch of context-sensitive optimizations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):167:1–167:28, November 2020. URL <https://dl.acm.org/doi/10.1145/3428235>. **Poesia:2020:DDC**
- [PP22] Matteo Paltenghi and Michael Pradel. Bugs in quantum computing platforms: an empirical study. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):86:1–86:27, April 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527330>. **Paltenghi:2022:BQC**
- [PPSW20] Zachary Palmer, Theodore Park, Scott Smith, and Shiwei Weng. Higher-order demand-driven symbolic evaluation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):102:1–102:28, August 2020. URL <https://dl.acm.org/doi/10.1145/3408984>. **Palmer:2020:HOD**
- [PRT<sup>+</sup>18] Casper Bach Poulsen, Arjen Rouvoet, Andrew Tolmach, Robbert Krebbers, and Eelco Visser. Intrinsically-typed definitional interpreters for imperative languages. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL): 16:1–16:??, January 2018. CODEN ????? ISSN 2475-1421. **Poulsen:2018:ITD**
- [PS18] Michael Pradel and Koushik Sen. DeepBugs: a learning approach to name-based bug detection. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):147:1–147:25, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276517>. **Pradel:2018:DLA**
- [PSW21] Zvonimir Pavlinovic, Yusen Su, and Thomas Wies. Data flow refinement type inference. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL): 19:1–19:31, January 2021. URL <https://dl.acm.org/doi/10.1145/3434300>. **Pavlinovic:2021:DFR**
- [PSY<sup>+</sup>20] Nadia Polikarpova, Deian Stefan, Jean Yang, Shachar Itzhaky, Travis Hance, and Armando Solar-Lezama. Liquid information flow control. *Proceedings of the ACM*

- on *Programming Languages (PACMPL)*, 4(ICFP):105:1–105:30, August 2020. URL <https://dl.acm.org/doi/10.1145/3408987>. [PT23b]
- Pedrot:2020:FTH**
- [PT20] Pierre-Marie Pédrot and Nicolas Tabareau. The fire triangle: how to mix substitution, dependent elimination, and effects. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 58:1–58:28, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371126>. [PTFT19]
- Pujet:2022:OEN**
- [PT22] Loïc Pujet and Nicolas Tabareau. Observational equality: now for good. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL): 32:1–32:27, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498693>. [Pue17]
- Popescu:2023:ATP**
- [PT23a] Andrei Popescu and Dmitriy Traytel. Admissible types-to-PERs relativization in higher-order logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL): 42:1–42:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571235>. [PUW+21]
- Pujet:2023:IOE**
- Loïc Pujet and Nicolas Tabareau. Impredicative observational equality. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL): 74:1–74:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571739>.
- Pedrot:2019:RET**
- Pierre-Marie Pédrot, Nicolas Tabareau, Hans Jacob Fehrmann, and Éric Tanter. A reasonably exceptional type theory. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):108:1–108:29, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341712>. [Puentes:2017:PMR]
- Juan Pedro Bolívar Puente. Persistence for the masses: RRB-vectors in a systems language. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP): 16:1–16:??, September 2017. CODEN ???? ISSN 2475-1421.
- Pitchanathan:2021:PFF**
- Arjun Pitchanathan, Christian Ulmann, Michel Weber, Torsten Hoefler, and Tobias Grosser. FPL: fast Presburger arithmetic through transprecision. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5

- (OOPSLA):162:1–162:26, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485539>. [PVV<sup>+</sup>17]
- Pelsmaecker:2022:LPS**
- [PvAPV22] Daniel A. A. Pelsmaecker, Hendrik van Antwerpen, Casper Bach Poulsen, and Eelco Visser. Language-parametric static semantic code completion. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):85:1–85:30, April 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527329>. [PWK<sup>+</sup>22]
- Poulsen:2023:HAM**
- [PvdR23] Casper Bach Poulsen and Cas van der Rest. Hefty algebras: Modular elaboration of higher-order algebraic effects. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):62:1–62:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571255>. [PWSD20]
- Parreaux:2018:UAS**
- [PVSK18] Lionel Parreaux, Antoine Voizard, Amir Shaikhha, and Christoph E. Koch. Unifying analytic and statically-typed quasiquotes. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):13:1–13:??, January 2018. CODEN ???? ISSN 2475-1421. [PWZS21]
- Parkinson:2017:PSN**
- Matthew Parkinson, Dimitrios Vytiniotis, Kapil Vaswani, Manuel Costa, Pantazis Deligiannis, Dylan McDermott, Aaron Blankstein, and Jonathan Balkind. Project snowflake: non-blocking safe manual memory management in .NET. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):95:1–95:??, October 2017. CODEN ???? ISSN 2475-1421.
- Padon:2022:IDP**
- Oded Padon, James R. Wilcox, Jason R. Koenig, Kenneth L. McMillan, and Alex Aiken. Induction duality: primal-dual search for invariants. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):50:1–50:29, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498712>.
- Pailoor:2020:APS**
- Shankara Pailoor, Xinyu Wang, Hovav Shacham, and Isil Dillig. Automated policy synthesis for system call sandboxing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):135:1–135:26, November 2020. URL <https://dl.acm.org/doi/10.1145/3428203>.
- Park:2021:GTA**
- Jiwon Park, Dominik Win-

- terer, Chengyu Zhang, and Zhendong Su. Generative type-aware mutation for testing SMT solvers. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5 (OOPSLA):152:1–152:19, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485529>. [QGG19]
- Popescu:2021:SSA**
- [PXA<sup>+</sup>21] Natalie Popescu, Ziyang Xu, Sotiris Apostolakis, David I. August, and Amit Levy. Safer at any speed: automatic context-aware safety enhancement for Rust. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5 (OOPSLA):103:1–103:23, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485480>. [QKB21]
- Protzenko:2017:VLL**
- [PZR<sup>+</sup>17] Jonathan Protzenko, Jean-Karim Zinzindohoué, Aseem Rastogi, Tahina Ramananandro, Peng Wang, Santiago Zanella-Béguelin, Antoine Delignat-Lavaud, Catalin Hritcu, Karthikeyan Bhargavan, Cédric Fournet, and Nikhil Swamy. Verified low-level programming embedded in F\*. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):17:1–17:??, September 2017. CODEN ???? ISSN 2475-1421. [QRS22]
- Qu:2019:RCA**
- Weihao Qu, Marco Gaboardi, and Deepak Garg. Relational cost analysis for functional-imperative programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (ICFP):92:1–92:29, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341696>.
- Qian:2021:CSS**
- Zesen Qian, G. A. Kavvos, and Lars Birkedal. Client-server sessions in linear logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):62:1–62:31, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473567>.
- Quiring:2022:ABE**
- Benjamin Quiring, John Reppy, and Olin Shivers. Analyzing binding extent in 3CPS. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):114:1–114:??, August 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547645>.
- Qiu:2017:NSP**
- Xiaokang Qiu and Armando Solar-Lezama. Natural synthesis of provably-correct data-structure manipulations. *Proceedings of the ACM on Programming Languages (PACMPL)*, [

- 1(OOPSLA):65:1–65:??, October 2017. CODEN ???? ISSN 2475-1421.
- [RAJ+17] Andrew Rice, Edward Aftandilian, Ciera Jaspan, Emily Johnston, Michael Pradel, and Yulissa Arroyo-Paredes. Detecting argument selection defects. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):104:1–104:??, October 2017. CODEN ???? ISSN 2475-1421.
- [Ram22] Norman Ramsey. Beyond reloader: recursive translation of unstructured control flow to structured control flow (functional pearl). *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):90:1–90:??, August 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547621>.
- [RAT17] Gregor Richards, Ellen Arteca, and Alexi Turcotte. The VM already knew that: leveraging compile-time knowledge to optimize gradual typing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):55:1–55:??, October 2017. CODEN ???? ISSN 2475-1421.
- [RBDO22] Azalea Raad, Josh Berdine, Derek Dreyer, and Peter W. O’Hearn. Concurrent incorrectness separation logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):34:1–34:29, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498695>.
- [RBG+18] Ivan Radiček, Gilles Barthe, Marco Gaboardi, Deepak Garg, and Florian Zuleger. Monadic refinements for relational cost analysis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):36:1–36:??, January 2018. CODEN ???? ISSN 2475-1421.
- [RC21] Pedro Rocha and Luís Caires. Propositions-as-types and shared state. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):79:1–79:30, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473584>.
- [Rei17] Alastair Reid. Who guards the guards? Formal validation of the ARM v8-m architecture specification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1

- (OOPSLA):88:1–88:??, October 2017. CODEN ???? ISSN 2475-1421.
- [RFH<sup>+</sup>22] Nico Ritschel, Felipe Fronchetti, Reid Holmes, Ronald Garcia, and David C. Shepherd. Can guided decomposition help end-users write larger block-based programs? A mobile robot experiment. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):133:1–133:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563296>.
- [RG23] Ori Roth and Yossi Gil. Fluent APIs in functional languages. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1):105:1–105:??, April 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586057>.
- [RGGH21] Vineet Rajani, Marco Gaboardi, Deepak Garg, and Jan Hoffmann. A unifying type-theory for higher-order (amortized) cost analysis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):27:1–27:28, January 2021. URL <https://dl.acm.org/doi/10.1145/3434308>.
- [RGSNT17] Talia Ringer, Dan Grossman, Daniel Schwartz-Narbonne, and Serdar Tasiran. A solver-aided language for test input generation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):91:1–91:??, October 2017. CODEN ???? ISSN 2475-1421.
- [RH22] Fabian Ritter and Sebastian Hack. AnICA: analyzing inconsistencies in microarchitectural code analyzers. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):125:1–125:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563288>.
- [RHdSOZ23] Nick Rioux, Xuejing Huang, Bruno C. d. S. Oliveira, and Steve Zdancewic. A bowtie for a beast: Overloading, eta expansion, and extensible data types in F $\times$ . *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):18:1–18:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571211>.
- [RK22] Elijah Rivera and Shriram Krishnamurthi. Structural versus pipeline composition of

**Ringer:2017:SAL****Ritschel:2022:CGD****Ritter:2022:AAI****Roth:2023:FAF****Rioux:2023:BBO****Rajani:2021:UTT****Rivera:2022:SVP**

- higher-order functions (experience report). *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):102:1–102:??, August 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547633>. [RL19]
- Rapoport:2017:SSP**
- [RKHL17] Marianna Rapoport, Ifaz Kabir, Paul He, and Ondrej Lhoták. A simple soundness proof for dependent object types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):46:1–46:??, October 2017. CODEN ????. ISSN 2475-1421. [RLS20]
- Rama:2018:ROS**
- [RKS18] Girish Maskeri Rama, Raghavan Komondoor, and Himanshu Sharma. Refinement in object-sensitivity points-to analysis via slicing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):142:1–142:27, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276512>. [RLV20]
- Rouvoet:2021:ITC**
- [RKV21] Arjen Rouvoet, Robbert Krebbers, and Eelco Visser. Intrinsically typed compilation with nameless labels. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):22:1–22:28, January 2021. URL <https://dl.acm.org/doi/10.1145/3434303>. [RMH21]
- Rapoport:2019:PDF**
- Marianna Rapoport and Ondrej Lhoták. A path to DOT: formalizing fully path-dependent types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):145:1–145:29, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360571>. [Reid:2020:HCS]
- John Reid, Bill Long, and Jon Steidel. History of coarrays and SPMD parallelism in Fortran. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(HOPL):72:1–72:30, June 2020. URL <https://dl.acm.org/doi/abs/10.1145/3386322>. [Raad:2020:POG]
- Azalea Raad, Ori Lahav, and Viktor Vafeiadis. Persistent Owicki—Gries reasoning: a program logic for reasoning about persistent programs on Intel-x86. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):151:1–151:28, November 2020. URL <https://dl.acm.org/doi/10.1145/3428219>. [Rosemann:2021:AIS]
- Julian Rosemann, Simon Moll, and Sebastian Hack. An abstract interpretation for SPMD divergence on reducible control flow graphs. *Proceedings of the ACM on Program-*

- ming Languages (PACMPL)*, 5(POPL):31:1–31:31, January 2021. URL <https://dl.acm.org/doi/10.1145/3434312>.
- [RMV22] Azalea Raad, Luc Maranget, and Viktor Vafeiadis. Extending Intel-x86 consistency and persistency: formalising the semantics of Intel-x86 memory types and non-temporal stores. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):22:1–22:31, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498683>.
- [RMZ<sup>+</sup>20] Mukund Raghthaman, Jonathan Mendelson, David Zhao, Mayur Naik, and Bernhard Scholz. Provenance-guided synthesis of Datalog programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):62:1–62:27, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371130>.
- [RNDJ19] Kia Rahmani, Kartik Nagar, Benjamin Delaware, and Suresh Jagannathan. CLOTHO: directed test generation for weakly consistent database systems. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):117:1–117:28, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360543>.
- [Rot21] Ori Roth. Study of the subtyping machine of nominal subtyping with variance. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):137:1–137:27, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485514>.
- [RPF<sup>+</sup>23] Alexey Radul, Adam Paszke, Roy Frostig, Matthew J. Johnson, and Dougal Maclaurin. You only linearize once: Tangents transpose to gradients. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):43:1–43:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571236>.
- [RRG<sup>+</sup>21] Kia Rahmani, Mohammad Raza, Sumit Gulwani, Vu Le, Daniel Morris, Arjun Radhakrishna, Gustavo Soares, and Ashish Tiwari. Multimodal program inference: a marriage of pre-trained language models and component-based synthesis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):158:1–158:29, October 2021. CODEN ???? ISSN

- 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485535>.
- [RS20] Manuel Rigger and Zhen-dong Su. Finding bugs in database systems via query partitioning. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):211:1–211:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428279>.
- [RSPC17] Wilmer Ricciotti, Jan Stolarek, Roly Perera, and James Cheney. Imperative functional programs that explain their work. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):14:1–14:??, September 2017. CODEN ???? ISSN 2475-1421.
- [RST20] Gabriel Radanne, Hannes Saf-frich, and Peter Thiemann. Kindly bent to free us. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):103:1–103:29, August 2020. URL <https://dl.acm.org/doi/10.1145/3408985>.
- [RSY21] Alban Reynaud, Gabriel Scherer, and Jeremy Yallop. A practical mode system for recursive definitions. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):
- [RV18] Azalea Raad and Viktor Vafeiadis. Persistence semantics for weak memory: integrating epoch persistency with the TSO memory model. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):137:1–137:27, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276507>.
- [RvAP<sup>+</sup>20] Arjen Rouvoet, Hendrik van Antwerpen, Casper Bach Poulsen, Robbert Krebbers, and Eelco Visser. Knowing when to ask: sound scheduling of name resolution in type checkers derived from declarative specifications. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):180:1–180:28, November 2020. URL <https://dl.acm.org/doi/10.1145/3428248>.
- [RWNV20] Azalea Raad, John Wicker-son, Gil Neiger, and Viktor Vafeiadis. Persistency semantics of the Intel-x86 architecture. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):11:1–11:31, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371079>.

**Rigger:2020:FBD****Raad:2018:PSW****Ricciotti:2017:IFP****Rouvoet:2020:KWA****Radanne:2020:KBF****Raad:2020:PSI****Reynaud:2021:PMS**

- [RWV19] **Raad:2019:WPS** Azalea Raad, John Wickerson, and Viktor Vafeiadis. Weak persistency semantics from the ground up: formalising the persistency semantics of ARMv8 and transactional models. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):135:1–135:27, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360561>.
- [RZ20] **Rioux:2020:CF** Nick Rioux and Steve Zdancewicz. Computation focusing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):95:1–95:27, August 2020. URL <https://dl.acm.org/doi/10.1145/3408977>.
- [SA19] **Smith:2019:SDP** Calvin Smith and Aws Albarghouti. Synthesizing differentially private programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):94:1–94:29, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341698>.
- [SAB17] **Spath:2017:IEP** Johannes Späth, Karim Ali, and Eric Bodden. IDEal: efficient and precise alias-aware dataflow analysis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):99:1–99:??, October 2017. CODEN ???? ISSN 2475-1421.
- [SADC23] **Shapira:2023:DLR** Yuval Shapira, Eran Avneri, and Dana Drachler-Cohen. Deep learning robustness verification for few-pixel attacks. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1):90:1–90:??, April 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586042>.
- [SAFF<sup>+</sup>17] **St-Amour:2017:HRS** Vincent St-Amour, Daniel Feltey, Spencer P. Florence, Shu-Hung You, and Robert Bruce Findler. *Herbarium Racketensis*: a stroll through the woods (functional pearl). *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):1:1–1:??, September 2017. CODEN ???? ISSN 2475-1421.
- [San22] **Sangiorgi:2022:ECT** Davide Sangiorgi. From enhanced coinduction towards enhanced induction. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):18:1–18:29, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498679>.
- [SB19] **Swierstra:2019:PTS** Wouter Swierstra and Tim Baanen. A predicate transformer semantics for effects

- (functional pearl). *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):103:1–103:26, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341707>. [SBO20]
- Szabo:2018:ILB**
- [SBEV18] Tamás Szabó, Gábor Bergmann, Sebastian Erdweg, and Markus Voelter. Incrementalizing lattice-based program analyses in Datalog. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):139:1–139:29, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276509>. [SC18]
- Sozeau:2020:CCC**
- [SBF<sup>+</sup>20] Matthieu Sozeau, Simon Boulier, Yannick Forster, Nicolas Tabareau, and Théo Winterhalter. Coq Coq correct! Verification of type checking and erasure for Coq, in Coq. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):8:1–8:28, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371076>. [SC20]
- Six:2020:CEI**
- [SBM20] Cyril Six, Sylvain Boulmé, and David Monniaux. Certified and efficient instruction scheduling: application to interlocked VLIW processors. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):129:1–129:29, November 2020. URL <https://dl.acm.org/doi/abs/10.1145/3428197>. [Schuster:2020:CEH]
- Philipp Schuster, Jonathan Immanuel Brachthäuser, and Klaus Ostermann. Compiling effect handlers in capability-passing style. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):93:1–93:28, August 2020. URL <https://dl.acm.org/doi/10.1145/3408975>.
- Stampoulis:2018:PFL**
- Antonis Stampoulis and Adam Chlipala. Prototyping a functional language using higher-order logic programming: a functional pearl on learning the ways of  $\lambda$  Prolog Makam. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):93:1–93:30, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236788>.
- Shahin:2020:AEV**
- Ramy Shahin and Marsha Chechik. Automatic and efficient variability-aware lifting of functional programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):157:1–157:27, November 2020. URL <https://dl.acm.org/doi/10.1145/3428225>.
- Schwerter:2021:AGT**
- Felipe Bañados Schwerter, Alison M. Clark, Khurram A.

- Jafery, and Ronald Garcia. Abstracting gradual typing moving forward: precise and space-efficient. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL): 61:1–61:28, January 2021. URL <https://dl.acm.org/doi/10.1145/3434342>.
- [SCK<sup>+</sup>20] Youngju Song, Minki Cho, Dongjoo Kim, Yonghyun Kim, Jeehoon Kang, and Chung-Kil Hur. CompCertM: CompCert with C-assembly linking and lightweight modular verification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 23:1–23:31, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371091>.
- [SCL<sup>+</sup>23] Youngju Song, Minki Cho, Dongjae Lee, Chung-Kil Hur, Michael Sammler, and Derek Dreyer. Conditional contextual refinement. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL): 39:1–39:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571232>.
- [SCMS20] Thodoris Sotiropoulos, Stefanos Chaliasos, Dimitris Mitropoulos, and Diomidis Spinellis. A model for detecting faults in build specifications. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):144:1–144:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428212>.
- [SCZW20] Yulei Sui, Xiao Cheng, Guanqin Zhang, and Haoyu Wang. Flow2Vec: value-flow-based precise code embedding. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):233:1–233:27, November 2020. URL <https://dl.acm.org/doi/10.1145/3428301>.
- [SDB19] Lau Skorstengaard, Dominique Devriese, and Lars Birkedal. StkTokens: enforcing well-bracketed control flow and stack encapsulation using linear capabilities. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL): 19:1–19:28, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290332>.
- [SDdSO22] Yaozhu Sun, Utkarsh Dhandhania, and Bruno C. d. S. Oliveira. Compositional embeddings of domain-specific languages. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):131:1–131:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL

**Song:2020:CCC****Sui:2020:FVF****Song:2023:CCR****Skorstengaard:2019:SEW****Sun:2022:CED****Sotiropoulos:2020:MDF**

- <https://dl.acm.org/doi/10.1145/3563294>.
- [SDL18] Marcelo Sousa, Isil Dillig, and Shuvendu K. Lahiri. Verified three-way program merge. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):165:1–165:29, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276535>.
- [SdSCQ19] Marcos Yukio Siraichi, Vinícius Fernandes dos Santos, Caroline Collange, and Fernando Magno Quintão Pereira. Qubit allocation as a combination of subgraph isomorphism and token swapping. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):120:1–120:29, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360546>.
- [SDW<sup>+</sup>20] KC Sivaramakrishnan, Stephen Dolan, Leo White, Sadiq Jaffer, Tom Kelly, Anmol Sahoo, Sudha Parimala, Atul Dhiman, and Anil Madhavapeddy. Retrofitting parallelism onto OCaml. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):113:1–113:30, August 2020. URL <https://dl.acm.org/doi/10.1145/3408995>.
- [SEG<sup>+</sup>22] Georgios Sakkas, Madeline Endres, Philip J. Guo, Westley Weimer, and Ranjit Jhala. Seq2Parse: neurosymbolic parse error repair. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):167:1–167:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563330>.
- [SEP<sup>+</sup>20] Bo Sang, Patrick Eugster, Gustavo Petri, Srivatsan Ravi, and Pierre-Louis Roman. Scalable and serializable networked multi-actor programming. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):198:1–198:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428266>.
- [Ser21] Manuel Serrano. Of JavaScript AOT compilation performance. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):70:1–70:30, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473575>.
- [SFH<sup>+</sup>20] Steffen Smolka, Nate Foster, Justin Hsu, Tobias Kappé, Dexter Kozen, and Alexandra Silva. Guarded Kleene algebra with

- tests: verification of uninterpreted programs in nearly linear time. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 61:1–61:28, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371129>. [SG21]
- Sun:2022:CPP**
- [SFH22] Zhihang Sun, Hongyu Fan, and Fei He. Consistency-preserving propagation for SMT solving of concurrent program verification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):158:1–158:??, October 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563321>. [SGD17]
- Saad:2020:OAS**
- [SFRM20] Feras A. Saad, Cameron E. Freer, Martin C. Rinard, and Vikash K. Mansinghka. Optimal approximate sampling from discrete probability distributions. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 36:1–36:31, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371104>. [SGDL20]
- Shaikhha:2019:EDP**
- [SFVJ19] Amir Shaikhha, Andrew Fitzgibbon, Dimitrios Vytiniotis, and Simon Peyton Jones. Efficient differentiable programming in a functional array-processing language. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):97:1–97:30, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341701>. [Stucki:2021:THO]
- Stucki:2021:THO**
- Sandro Stucki and Paolo G. Garrusso. A theory of higher-order subtyping with type intervals. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP): 69:1–69:30, August 2021. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473574>. [Swasey:2017:RCV]
- Swasey:2017:RCV**
- David Swasey, Deepak Garg, and Derek Dreyer. Robust and compositional verification of object capability patterns. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):89:1–89:??, October 2017. CODEN ????. ISSN 2475-1421. [Sammler:2020:HLB]
- Sammler:2020:HLB**
- Michael Sammler, Deepak Garg, Derek Dreyer, and Tadeusz Litak. The high-level benefits of low-level sandboxing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 32:1–32:32, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371100>. [Smaragdakis:2021:SVF]
- Smaragdakis:2021:SVF**
- Yannis Smaragdakis, Neville Grech, Sifis Lagouvardos, Kon-

- stantinos Triantafyllou, and Ilias Tsatiris. Symbolic value-flow static analysis: deep, precise, complete modeling of Ethereum smart contracts. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):163:1–163:30, October 2021. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485540>. [SHK<sup>+</sup>20]
- Spies:2022:LCR**
- [SGT<sup>+</sup>22] Simon Spies, Lennard Gäher, Joseph Tassarotti, Ralf Jung, Robbert Krebbers, Lars Birkedal, and Derek Dreyer. Later credits: resourceful reasoning for the later modality. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):100:1–100:??, August 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547631>. [SHSO22]
- Selsam:2020:SPB**
- [SHdM20] Daniel Selsam, Simon Hudon, and Leonardo de Moura. Sealing pointer-based optimizations behind pure functions. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):115:1–115:20, August 2020. URL <https://dl.acm.org/doi/10.1145/3408997>. [SHTZ<sup>+</sup>19]
- Serrano:2020:QLI**
- [SHJV20] Alejandro Serrano, Jurriaan Hage, Simon Peyton Jones, and Dimitrios Vytiniotis. A quick look at impredicativity. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):89:1–89:29, August 2020. URL <https://dl.acm.org/doi/10.1145/3408971>. [Solomon:2020:HL]
- Cynthia Solomon, Brian Harvey, Ken Kahn, Henry Lieberman, Mark L. Miller, Artemis Papert, and Brian Silverman. History of Logo. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(HOPL):79:1–79:66, June 2020. URL <https://dl.acm.org/doi/abs/10.1145/3386329>. [Shaikhha:2022:FCP]
- Amir Shaikhha, Mathieu Huot, Jaclyn Smith, and Dan Olteanu. Functional collection programming with semi-ring dictionaries. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):89:1–89:33, April 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527333>. [Shi:2019:RAS]
- August Shi, Milica Hadzi-Tanovic, Lingming Zhang, Darko Marinov, and Owolabi Legunsen. Reflection-aware static regression test selection. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):187:1–187:29, October 2019. URL

- <https://dl.acm.org/doi/abs/10.1145/3360613>.
- [SHW<sup>+</sup>20] Ryan Senanayake, Changwan Hong, Ziheng Wang, Amalee Wilson, Stephen Chou, Shoaib Kamil, Saman Amarasinghe, and Fredrik Kjolstad. A sparse iteration space transformation framework for sparse tensor algebra. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):158:1–158:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428226>.
- [SJB19] Milijana Surbatovich, Limin Jia, and Brandon Lucia. I/O dependent idempotence bugs in intermittent systems. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (OOPSLA):183:1–183:31, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360609>.
- [SJS<sup>+</sup>M20] Aaron Stump, Christopher Jenkins, Stephan Spahn, and Colin McDonald. Strong functional pearl: Harper’s regular-expression matcher in Cedille. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):122:1–122:25, August 2020. URL <https://dl.acm.org/doi/10.1145/3409004>.
- [SKB<sup>+</sup>22] **Senanayake:2020:SIS** Arnaud Spiwack, Csongor Kiss, Jean-Philippe Bernardy, Nicolas Wu, and Richard A. Eisenberg. Linearly qualified types: generic inference for capabilities and uniqueness. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):95:1–95:??, August 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547626>.
- [SKD21] **Spies:2021:TSI** Simon Spies, Neel Krishnaswami, and Derek Dreyer. Transfinite step-indexing for termination. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):13:1–13:29, January 2021. URL <https://dl.acm.org/doi/10.1145/3434294>.
- [SKE<sup>+</sup>20] **Sprenger:2020:ISL** Christoph Sprenger, Tobias Klenze, Marco Eilers, Felix A. Wolf, Peter Müller, Martin Clochard, and David Basin. Igloo: soundly linking compositional refinement and separation logic for distributed system verification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):152:1–152:31, November 2020. URL <https://dl.acm.org/doi/10.1145/3428220>.

- [ŚKG18] Adam Ścibior, Ohad Kammar, and Zoubin Ghahramani. Functional programming for modular Bayesian inference. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):83:1–83:29, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236778>. **Scibior:2018:FPM**
- [SKR20] Malavika Samak, Deokhwan Kim, and Martin C. Rinard. Synthesizing replacement classes. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):52:1–52:33, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371120>. **Samak:2020:SRC**
- [SKS<sup>+</sup>19] Guido Salvaneschi, Mirko Köhler, Daniel Sokolowski, Philipp Haller, Sebastian Erdweg, and Mira Mezini. Language-integrated privacy-aware distributed queries. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):167:1–167:30, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360593>. **Salvaneschi:2019:LIP**
- [ŚKV<sup>+</sup>18] Adam Ścibior, Ohad Kammar, Matthijs Vákár, Sam Staton, Hongseok Yang, Yufei Cai, Klaus Ostermann, Sean K. Moss, Chris Heunen, and Zoubin Ghahramani. Denotational validation of higher-order Bayesian inference. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):60:1–60:??, January 2018. CODEN ???? ISSN 2475-1421. **Scibior:2018:DVH**
- [SL23] Abhishek Kr Singh and Ori Lahav. An operational approach to library abstraction under relaxed memory concurrency. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):53:1–53:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571246>. **Singh:2023:OAL**
- [SLDN17] Ryan G. Scott, Omar S. Navarro Leija, Joseph Devietti, and Ryan R. Newton. Monadic composition for deterministic, parallel batch processing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):73:1–73:??, October 2017. CODEN ???? ISSN 2475-1421. **Scott:2017:MCD**
- [SLHR22] Zachary Susag, Sumit Lahiri, Justin Hsu, and Subhajit Roy. Symbolic execution for randomized programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):181:1–181:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571246>. **Susag:2022:SER**

- <https://dl.acm.org/doi/10.1145/3563344>.
- Surbatovich:2020:TFF**
- [SLJ20] Milijana Surbatovich, Brandon Lucia, and Limin Jia. Towards a formal foundation of intermittent computing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):163:1–163:31, November 2020. URL <https://dl.acm.org/doi/10.1145/3428231>. [SMC19]
- Song:2019:ASD**
- [SLO19] Dowon Song, Myungho Lee, and Hakjoo Oh. Automatic and scalable detection of logical errors in functional programming assignments. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (OOPSLA):188:1–188:30, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360614>. [SMC21]
- Sozeau:2019:ERH**
- [SM19] Matthieu Sozeau and Cyprien Mangin. Equations reloaded: high-level dependently-typed functional programming and proving in Coq. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (ICFP):86:1–86:29, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341690>. [SMM17]
- Stievenart:2020:FCB**
- [SM20] Quentin Stiévenart and Magnus Madsen. Fuzzing channel-based concurrency runtimes using types and effects. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):186:1–186:27, November 2020. URL <https://dl.acm.org/doi/10.1145/3428254>.
- Sherman:2019:SRS**
- Benjamin Sherman, Jesse Michel, and Michael Carbin. Sound and robust solid modeling via exact real arithmetic and continuity. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (ICFP):99:1–99:29, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341703>.
- Sherman:2021:CSD**
- Benjamin Sherman, Jesse Michel, and Michael Carbin.  $\lambda_s$ : computable semantics for differentiable programming with higher-order functions and datatypes. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):3:1–3:31, January 2021. URL <https://dl.acm.org/doi/10.1145/3434284>.
- Sampson:2017:SSH**
- Adrian Sampson, Kathryn S. McKinley, and Todd Mytkowicz. Static stages for heterogeneous programming. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1 (OOPSLA):71:1–71:??, October 2017. CODEN ????? ISSN 2475-1421.

- Santos:2018:JJV**
- [SMN<sup>+</sup>18] José Frago­so Santos, Petar Maksimović, Daiva Naudžiūnienė, Thomas Wood, and Philippa Gardner. JaVerT: JavaScript verification toolchain. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):50:1–50:??, January 2018. CODEN ???? ISSN 2475-1421. [SNJ<sup>+</sup>19]
- Spall:2020:BSP**
- [SMTH20] Sarah Spall, Neil Mitchell, and Sam Tobin-Hochstadt. Build scripts with perfect dependencies. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):169:1–169:28, November 2020. URL <https://dl.acm.org/doi/10.1145/3428237>. [SP22]
- Shajii:2019:SHP**
- [SNB<sup>+</sup>19] Ariya Shajii, Ibrahim Numanagić, Riyadh Baghdadi, Bonnie Berger, and Saman Amarasinghe. Seq: a high-performance language for bioinformatics. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):125:1–125:29, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360551>. [Spi17]
- Stein:2019:SAD**
- [SNCM19] Benno Stein, Benjamin Barslev Nielsen, Bor-Yuh Evan Chang, and Anders Møller. Static analysis with demand-driven value refinement. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):140:1–140:29, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360566>. [Serg:2019:SSC]
- Serg:2019:SSC**
- Ilya Sergey, Vaivaswatha Nagaraj, Jacob Johannsen, Amrit Kumar, Anton Trunov, and Ken Chan Guan Hao. Safer smart contract programming with Scilla. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):185:1–185:30, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360611>. [Sela:2022:CS]
- Sela:2022:CS**
- Gal Sela and Erez Petrank. Concurrent size. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):137:1–137:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563300>. [Spivey:2017:FCP]
- Spivey:2017:FCP**
- Michael Spivey. Faster coroutine pipelines. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):5:1–5:??, September 2017. CODEN ???? ISSN 2475-1421. [Selakovic:2018:TGH]
- Selakovic:2018:TGH**
- Marija Selakovic, Michael Pradel, Rezwana Karim, and Frank Tip. Test generation

- for higher-order functions in dynamic languages. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):161:1–161:27, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276531>. [SScWS19]
- [SPV18] Gagandeep Singh, Markus Püschel, and Martin Vechev. A practical construction for decomposing numerical abstract domains. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):55:1–55:??, January 2018. CODEN ???? ISSN 2475-1421. [SSH<sup>+</sup>19]
- [SRF<sup>+</sup>20] Nikhil Swamy, Aseem Rastogi, Aymeric Fromherz, Denis Merigoux, Danel Ahman, and Guido Martínez. SteelCore: an extensible concurrent separation logic for effectful dependently typed programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):121:1–121:30, August 2020. URL <https://dl.acm.org/doi/10.1145/3409003>. [SSK17]
- [SSC<sup>+</sup>17] Eric L. Seidel, Huma Sibghat, Kamalika Chaudhuri, Wesley Weimer, and Ranjit Jhala. Learning to blame: localizing novice type errors with data-driven diagnosis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):60:1–60:??, October 2017. CODEN ???? ISSN 2475-1421. [Sjoberg:2019:DLC]
- Vilhelm Sjöberg, Yuyang Sang, Shu chun Weng, and Zhong Shao. DeepSEA: a language for certified system software. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):136:1–136:27, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360562>. [Sharif:2019:APC]
- Hashim Sharif, Prakalp Srivastava, Muhammad Huzaifa, Maria Kotsifakou, Keyur Joshi, Yasmin Sarita, Nathan Zhao, Vikram S. Adve, Sasa Misailovic, and Sarita Adve. ApproxHPVM: a portable compiler IR for accuracy-aware optimizations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):186:1–186:30, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360612>. [Sakka:2017:TFA]
- Laith Sakka, Kirshanthan Sundararajah, and Milind Kulkarni. TreeFuser: a framework for analyzing and fusing general recursive tree traversals. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):76:1–76:??, October 2017. CODEN ???? ISSN 2475-1421.

- [SSK22] **Sundararajah:2022:UUL**  
Kirshanthan Sundararajah, Charitha Saumya, and Milind Kulkarni. UniRec: a unimodular-like framework for nested recursions and loops. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):170:1–170:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563333>.
- [SSR<sup>+</sup>21] **Sorensen:2021:STG**  
Tyler Sorensen, Lucas F. Salvador, Harmit Raval, Hugues Evrard, John Wickerson, Margaret Martonosi, and Alastair F. Donaldson. Specifying and testing GPU workgroup progress models. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):131:1–131:30, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485508>.
- [SSS<sup>+</sup>23] **Sammler:2023:DDA**  
Michael Sammler, Simon Spies, Youngju Song, Emanuele Dossualdo, Robbert Krebbers, Deepak Garg, and Derek Dreyer. DimSum: a decentralized approach to multi-language semantics and verification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):27:1–27:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571220>.
- [SSSC<sup>+</sup>22] **Sivaraman:2022:DDL**  
Aishwarya Sivaraman, Alex Sanchez-Stern, Bretton Chen, Sorin Lerner, and Todd Millstein. Data-driven lemma synthesis for interactive proofs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):143:1–143:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563306>.
- [SSSW21] **Sabok:2021:PPS**  
Marcin Sabok, Sam Staton, Dario Stein, and Michael Wolman. Probabilistic programming semantics for name generation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):11:1–11:29, January 2021. URL <https://dl.acm.org/doi/10.1145/3434292>.
- [ST21] **Sekiyama:2021:CTA**  
Taro Sekiyama and Takeshi Tsukada. CPS transformation with affine types for call-by-value implicit polymorphism. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):95:1–95:30, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473600>.

- [STI20] **Sekiyama:2020:SRP**  
Taro Sekiyama, Takeshi Tsukada, and Atsushi Igarashi. Signature restriction for polymorphic algebraic effects. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):117:1–117:30, August 2020. URL <https://dl.acm.org/doi/10.1145/3408999>.
- [Str20] **Stroustrup:2020:TCC**  
Bjarne Stroustrup. Thriving in a crowded and changing world: C++ 2006–2020. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(HOPL):70:1–70:168, June 2020. URL <https://dl.acm.org/doi/abs/10.1145/3386320>.
- [SU23] **Sekiyama:2023:TVA**  
Taro Sekiyama and Hiroshi Unno. Temporal verification with answer-effect modification: Dependent temporal type-and-effect system with delimited continuations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):71:1–71:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571264>.
- [SV21] **Steele:2021:PLB**  
Guy L. Steele Jr. and Sebastiano Vigna. LXM: better splittable pseudorandom number generators (and almost as fast). *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):148:1–148:31, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485525>.
- [SV23] **Smeding:2023:EDN**  
Tom J. Smeding and Matthijs I. L. Vákár. Efficient dual-numbers reverse AD via well-known program transformations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):54:1–54:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571247>.
- [SVR17] **Srinivasan:2017:MAM**  
Venkatesh Srinivasan, Ara Vartanian, and Thomas Reps. Model-assisted machine-code synthesis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):61:1–61:??, October 2017. CODEN ???? ISSN 2475-1421.
- [SWT18] **Sergey:2018:PPD**  
Ilya Sergey, James R. Wilcox, and Zachary Tatlock. Programming and proving with distributed protocols. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):28:1–28:??, January 2018. CODEN ???? ISSN 2475-1421.

- [SWYZ22] **Shi:2022:IED** Qingkai Shi, Yongchao Wang, Peisen Yao, and Charles Zhang. Indexing the extended Dyck-CFL reachability for context-sensitive program analysis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA2):176:1–176:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563339>.
- [SY19] **Scalas:2019:LMM** Alceste Scalas and Nobuko Yoshida. Less is more: multiparty session types revisited. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):30:1–30:29, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290343>.
- [Sym20] **Syme:2020:EHF** Don Syme. The early history of F#. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (HOPL):75:1–75:58, June 2020. URL <https://dl.acm.org/doi/abs/10.1145/3386325>.
- [SYW<sup>+</sup>21] **Su:2021:FAF** Ting Su, Yichen Yan, Jue Wang, Jingling Sun, Yiheng Xiong, Geguang Pu, Ke Wang, and Zhendong Su. Fully automated functional fuzzing of Android apps for detecting non-crashing logic bugs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5 (OOPSLA):156:1–156:31, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485533>.
- [SZ21] **Silver:2021:DMF** Lucas Silver and Steve Zdancewic. Dijkstra monads forever: termination-sensitive specifications for interaction trees. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):26:1–26:28, January 2021. URL <https://dl.acm.org/doi/10.1145/3434307>.
- [SZD<sup>+</sup>17] **Santolucito:2017:SCF** Mark Santolucito, Ennan Zhai, Rahul Dhodapkar, Aaron Shim, and Ruzica Piskac. Synthesizing configuration file specifications with association rule learning. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):64:1–64:??, October 2017. CODEN ???? ISSN 2475-1421.
- [SZD<sup>+</sup>21] **Shen:2021:COD** Xipeng Shen, Guoqiang Zhang, Irene Dea, Samantha Andow, Emilio Arroyo-Fang, Neal Gafter, Johann George, Melissa Grueter, Erik Meijer, Olin Grigsby, Shivers, Steffi Stumplos, Alanna Tempest, Christy Warden, and Shannon Yang. Coarsening optimization for differentiable programming. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5

- (OOPSLA):130:1–130:27, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485507>. [TCJ20]
- Shen:2019:IRA**
- [SZZ<sup>+</sup>19] Bo Shen, Wei Zhang, Haiyan Zhao, Guangtai Liang, Zhi Jin, and Qianxiang Wang. IntelliMerge: a refactoring-aware software merging technique. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):170:1–170:28, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360596>. [Tej20]
- Timany:2019:MRV**
- [TB19] Amin Timany and Lars Birkedal. Mechanized relational verification of concurrent programs with continuations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):105:1–105:28, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341709>. [TGKV20]
- Tosch:2019:PAT**
- [TBB<sup>+</sup>19] Emma Tosch, Eytan Bakshy, Emery D. Berger, David D. Jensen, and J. Eliot B. Moss. PlanAnalyzer: assessing threats to the validity of online experiments. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):182:1–182:30, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360608>. [TGSM19]
- Trinh:2020:ITD**
- Minh-Thai Trinh, Duc-Hiep Chu, and Joxan Jaffar. Inter-theory dependency analysis for SMT string solvers. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):192:1–192:27, November 2020. URL <https://dl.acm.org/doi/10.1145/3428260>.
- Tejiscak:2020:DTC**
- Matús Tejiscák. A dependently typed calculus with pattern matching and erasure inference. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):91:1–91:29, August 2020. URL <https://dl.acm.org/doi/10.1145/3408973>.
- Turcotte:2020:DTR**
- Alexi Turcotte, Aviral Goel, Filip Krikava, and Jan Vitek. Designing types for R, empirically. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):181:1–181:25, November 2020. URL <https://dl.acm.org/doi/10.1145/3428249>.
- Ter-Gabrielyan:2019:MVH**
- Arshavir Ter-Gabrielyan, Alexander J. Summers, and Peter Müller. Modular verification of heap reachability properties in separation logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3

- (OOPSLA):121:1–121:28, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360547>. ■
- Turonova:2020:RMC**
- [THL<sup>+</sup>20] Lenka Turoňová, Lukáš Holík, Ondřej Lengál, Olli Saarikivi, Margus Veanes, and Tomáš Vojnar. Regex matching with counting-set automata. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):218:1–218:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428286>. ■ [TLT19]
- Titzer:2022:FPI**
- [Tit22] Ben L. Titzer. A fast in-place interpreter for WebAssembly. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):148:1–148:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563311>. ■ [TML<sup>+</sup>22]
- Ta:2018:ALS**
- [TLKC18] Quang-Trung Ta, Ton Chanh Le, Siau-Cheng Khoo, and Wei-Ngan Chin. Automated lemma synthesis in symbolic-heap separation logic. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):9:1–9:??, January 2018. CODEN ???? ISSN 2475-1421. ■ [TRWS22]
- Tan:2021:MPA**
- [TLM<sup>+</sup>21] Tian Tan, Yue Li, Xiaoxing Ma, Chang Xu, and Yannik Smaragdakis. Making pointer analysis more precise by unleashing the power of selective context sensitivity. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):147:1–147:27, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485524>. ■
- Toro:2019:GPR**
- Matías Toro, Elizabeth Labrada, and Éric Tanter. Gradual parametricity, revisited. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):17:1–17:30, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290330>. ■
- Tan:2022:SRT**
- Bryan Tan, Benjamin Mariano, Shuvendu K. Lahiri, Isil Dillig, and Yu Feng. SolType: refinement types for arithmetic overflow in Solidity. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):4:1–4:29, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498665>. ■
- Thomson:2022:FIA**
- Patrick Thomson, Rob Rix, Nicolas Wu, and Tom Schrijvers. Fusing industry and academia at GitHub (experience report). *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):

- 108:1–108:??, August 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547639>. [TV20]
- [TSKJB18] Amin Timany, Léo Stefanescu, Morten Krogh-Jespersen, and Lars Birkedal. A logical relation for monadic encapsulation of state: proving contextual equivalences in the presence of runST. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):64:1–64:??, January 2018. CODEN ????. ISSN 2475-1421.
- [TTS18] Nicolas Tabareau, Éric Tanter, and Matthieu Sozeau. Equivalences for free: univalent parametricity for effective transport. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):92:1–92:29, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236787>.
- [TU22] Takeshi Tsukada and Hiroshi Unno. Software model-checking as cyclic-proof search. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):63:1–63:29, January 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498725>.
- [UAM17] Tomoharu Ugawa, Tatsuya Abe, and Toshiyuki Maeda. Model checking copy phases of concurrent copying garbage collection with various memory models. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):53:1–53:??, October 2017. CODEN ????. ISSN 2475-1421.
- [UCWZ20] Caterina Urban, Maria Christakis, Valentin Wüstholtz, and Fuyuan Zhang. Perfectly parallel fairness certification of neural networks. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):185:1–185:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428253>.
- [UdM22] Sebastian Ullrich and Leonardo de Moura. ‘do’ unchained: embracing local imperativity in a purely functional language (functional pearl). *Proceedings of the ACM on Programming Languages (PACMPL)*,
- Thiemann:2020:LDS**
- Peter Thiemann and Vasco T. Vasconcelos. Label-dependent session types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):67:1–67:29, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371135>.
- Ugawa:2017:MCC**
- Urban:2020:PPF**
- Ullrich:2022:DUE**
- Timany:2018:LRM**
- Tabareau:2018:EFU**
- Tsukada:2022:SMC**

- 6(ICFP):109:1–109:??, August 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547640>.
- [USM22] Shubham Ugare, Gagandeep Singh, and Sasa Misailovic. Proof transfer for fast certification of multiple approximate neural networks. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):75:1–75:29, April 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527319>.
- [UST18] Hiroshi Unno, Yuki Satake, and Tachio Terauchi. Relatively complete refinement type system for verification of higher-order non-deterministic programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):12:1–12:??, January 2018. CODEN ????. ISSN 2475-1421.
- [UTGK23] Hiroshi Unno, Tachio Terauchi, Yu Gu, and Eric Koskinen. Modular primal-dual fixpoint logic solving for temporal verification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):72:1–72:??, January 2023. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571265>.
- [vAPRV18] Hendrik van Antwerpen, Casper Bach Poulsen, Arjen Rouvoet, and Eelco Visser. Scopes as types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):114:1–114:30, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276484>.
- [VCD+21] Son Tuan Vu, Albert Cohen, Arnaud De Grandmaison, Christophe Guillon, and Karine Heydemann. Reconciling optimization with secure compilation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):142:1–142:30, October 2021. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485519>.
- [vdRPR+22] Cas van der Rest, Casper Bach Poulsen, Arjen Rouvoet, Eelco Visser, and Peter Mosses. Intrinsically-typed definitional interpreters à la carte. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):192:1–192:??, October 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563355>.

**vanAntwerpen:2018:ST****Ugare:2022:PTF****Vu:2021:ROS****Unno:2018:RCR****vanderRest:2022:ITD****Unno:2023:MPD**

- [vdRS22] **vanderRest:2022:CUA** Cas van der Rest and Wouter Swierstra. A completely unique account of enumeration. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):105:1–105:??, August 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547636>.
- [VHSS20] **VanRoy:2020:HOM** Peter Van Roy, Seif Haridi, Christian Schulte, and Gert Smolka. A history of the Oz multiparadigm language. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(HOPL):83:1–83:56, June 2020. URL <https://dl.acm.org/doi/abs/10.1145/3386333>.
- [VDvG<sup>+</sup>21] **Vassena:2021:AES** Marco Vassena, Craig Disselkoe, Klaus von Gleisenthall, Sunjay Cauligi, Rami Gökhan Kıcı, Ranjit Jhala, Dean Tullsen, and Deian Stefan. Automatically eliminating speculative leaks from cryptographic code with Blade. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):49:1–49:30, January 2021. URL <https://dl.acm.org/doi/10.1145/3434330>.
- [VLRH23] **Verbruggen:2021:SPE** Gust Verbruggen, Vu Le, and Sumit Gulwani. Semantic programming by example with pre-trained models. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):100:1–100:25, October 2021. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485477>.
- [VMA19] **Voichick:2023:QUL** Finn Voichick, Liyi Li, Robert Rand, and Michael Hicks. Qunity: a unified language for quantum and classical computing. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):32:1–32:??, January 2023. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571225>.
- [VHEZ21] **Viering:2021:MST** Malte Viering, Raymond Hu, Patrick Eugster, and Lukasz Ziarek. A multiparty session typing discipline for fault-tolerant event-driven distributed programming. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):124:1–124:30, October 2021. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485501>.
- [VMA19] **Vezzosi:2019:CAD** Andrea Vezzosi, Anders Mörtberg, and Andreas Abel. Cubical Agda: a dependently typed programming language

- with univalence and higher inductive types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (ICFP):87:1–87:29, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341691>. [VRC22]
- Vale:2022:LOB**
- [VMS<sup>+</sup>22] Arthur Oliveira Vale, Paul-André Melliès, Zhong Shao, Jérémie Koenig, and Léo Stefanescu. Layered and object-based game semantics. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):42:1–42:32, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498703>.
- Vedurada:2018:IRO**
- [VN18] Jyothi Vedurada and V. Krishna Nandivada. Identifying refactoring opportunities for replacing type code with subclass and state. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (OOPSLA):138:1–138:28, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276508>. [VS20]
- VanStrydonck:2019:LCF**
- [VPD19] Thomas Van Strydonck, Frank Piessens, and Dominique Devriese. Linear capabilities for fully abstract compilation of separation-logic-verified code. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (ICFP):84:1–84:29, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341688>. [Valliappan:2022:NFS]
- Nachiappan Valliappan, Fabian Ruch, and Carlos Tomé Cortiñas. Normalization for fitch-style modal calculi. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):118:1–118:??, August 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547649>.
- Vukotic:2019:ATS**
- [VREV19] Ivana Vukotic, Vincent Rahli, and Paulo Esteves-Veríssimo. Asphaltion: trustworthy shielding against Byzantine faults. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):138:1–138:32, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360564>. [Vandenbroucke:2020:PFP]
- Alexander Vandenbroucke and Tom Schrijvers.  $\text{P}\lambda\omega\text{NK}$ : functional probabilistic NetKAT. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):39:1–39:27, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371107>. [Vale:2023:CTL]
- Arthur Oliveira Vale, Zhong Shao, and Yixuan Chen. A compositional theory of linearizability. *Proceedings of the*

- ACM on Programming Languages (*PACMPL*), 7(POPL): 38:1–38:??, January 2023. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571231>. [WAA22]
- [VTC<sup>+</sup>18] Niki Vazou, Anish Tondwalkar, Vikraman Choudhury, Ryan G. Scott, Ryan R. Newton, Philip Wadler, and Ranjit Jhala. Refinement reflection: complete verification with SMT. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):53:1–53:??, January 2018. CODEN ????. ISSN 2475-1421. [Wad17]
- [VTV18] Niki Vazou, Éric Tanter, and David Van Horn. Gradual liquid type inference. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):132:1–132:25, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276502>. [WAPJ22]
- [VVB22] Elizaveta Vasilenko, Niki Vazou, and Gilles Barthe. Safe couplings: coupled refinement types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP): 112:1–112:??, August 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547643>. [WBdG<sup>+</sup>23]
- [Westrick:2022:EDN] Sam Westrick, Jatin Arora, and Umut A. Acar. Entanglement detection with near-zero cost. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP): 115:1–115:??, August 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547646>. [Wadler:2017:EM] Philip Wadler. Editorial message. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):1:1–1:??, September 2017. CODEN ????. ISSN 2475-1421. [Wang:2022:IUA] Zi Wang, Aws Albarghouthi, Gautam Prakriya, and Somesh Jha. Interval universal approximation for neural networks. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL): 14:1–14:29, January 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498675>. [Winter:2023:RTB] Levin N. Winter, Florena Buse, Daan de Graaf, Klaus von Gleissenthall, and Burcu Kulahcioglu Ozkan. Randomized testing of Byzantine fault tolerant algorithms. *Proceedings of the ACM on Program-*

- ming Languages (PACMPL)*, 7 (OOPSLA1):101:1–101:??, April 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586053>. [WBTR20]
- Wirfs-Brock:2020:JFY**
- [WBE20] Allen Wirfs-Brock and Brendan Eich. JavaScript: the first 20 years. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(HOPL):77:1–77:189, June 2020. URL <https://dl.acm.org/doi/abs/10.1145/3386327>
- Wolf:2021:MSV**
- [WBM+21] Fabian Wolff, Aurel Bily, Christoph Matheja, Peter Müller, and Alexander J. Summers. Modular specification and verification of closures in Rust. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):145:1–145:29, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485522>.
- Wu:2022:SVG**
- [WBS+22] Haoze Wu, Clark Barrett, Mahmood Sharif, Nina Narodytska, and Gagandeep Singh. Scalable verification of GNN-based job schedulers. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):162:1–162:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563325>.
- Wei:2020:CSE**
- [WBTR20] Guannan Wei, Oliver Braccavac, Shangyin Tan, and Tiark Rompf. Compiling symbolic execution with staging and algebraic effects. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):164:1–164:33, November 2020. URL <https://dl.acm.org/doi/10.1145/3428232>.
- Wise:2020:GVR**
- [WBW+20] Jenna Wise, Johannes Bader, Cameron Wong, Jonathan Aldrich, Éric Tanter, and Joshua Sunshine. Gradual verification of recursive heap data structures. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):228:1–228:28, November 2020. URL <https://dl.acm.org/doi/10.1145/3428296>.
- Wu:2017:HTE**
- [WC17] Baijun Wu and Sheng Chen. How type errors were fixed and what students did? *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):105:1–105:??, October 2017. CODEN ???? ISSN 2475-1421.
- Wang:2018:SSR**
- [WCB18] Chenglong Wang, Alvin Cheung, and Rastislav Bodik. Speeding up symbolic reasoning

for relational queries. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (OOPSLA):157:1–157:25, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276527>. ■

**Wood:2017:IBD**

[WCBG17] Benjamin P. Wood, Man Cao, Michael D. Bond, and Dan Grossman. Instrumentation bias for dynamic data race detection. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):69:1–69:??, October 2017. CODEN ???? ISSN 2475-1421.

**Wu:2017:LUF**

[WCC17] Baijun Wu, John Peter Campora III, and Sheng Chen. Learning user friendly type-error messages. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1 (OOPSLA):106:1–106:??, October 2017. CODEN ???? ISSN 2475-1421.

**Waye:2017:WHO**

[WCD17] Lucas Waye, Stephen Chong, and Christos Dimoulas. Whip: higher-order contracts for modern services. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):36:1–36:??, September 2017. CODEN ???? ISSN 2475-1421.

**Wand:2018:CEP**

[WCGC18] Mitchell Wand, Ryan Culpepper, Theophilos Giannakopoulos, and Andrew Cobb. Contextual equivalence for a

probabilistic language with continuous random variables and recursion. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (ICFP):87:1–87:30, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236782>.

**Wu:2019:GPE**

[WCH<sup>+</sup>19] Baijun Wu, John Peter Campora III, Yi He, Alexander Schlecht, and Sheng Chen. Generating precise error specifications for C: a zero shot learning approach. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (OOPSLA):160:1–160:30, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360586>. ■

**Winograd-Cort:2017:FAD**

[WCHRP17] Daniel Winograd-Cort, Andreas Haeberlen, Aaron Roth, and Benjamin C. Pierce. A framework for adaptive differential privacy. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):10:1–10:??, September 2017. CODEN ???? ISSN 2475-1421.

**Wang:2019:CGM**

[WCMH19] Shengyi Wang, Qinxiang Cao, Anshuman Mohan, and Aquinas Hobor. Certifying graph-manipulating C programs via localizations within data structures. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):171:1–171:30, October 2019. URL

- <https://dl.acm.org/doi/abs/10.1145/3360597>.
- Wei:2019:SAI**
- [WCR19] Guannan Wei, Yuxuan Chen, and Tiark Rompf. Staged abstract interpreters: fast and modular whole-program analysis via meta-programming. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):126:1–126:32, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360552>. [WDS17]
- Weirich:2019:RDT**
- [WCVE19] Stephanie Weirich, Pritam Choudhury, Antoine Voizard, and Richard A. Eisenberg. A role for dependent types in Haskell. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):101:1–101:29, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341705>. [WDS18]
- Wang:2018:VED**
- [WDLC18] Yuepeng Wang, Isil Dillig, Shuvendu K. Lahiri, and William R. Cook. Verifying equivalence of database-driven applications. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):56:1–56:??, January 2018. CODEN ???? ISSN 2475-1421.
- Wei:2018:RAA**
- [WDR18] Guannan Wei, James Decker, and Tiark Rompf. Refunctionalization of abstract abstract machines: bridging the gap between abstract abstract machines and abstract definitional interpreters (functional pearl). *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):105:1–105:28, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236800>.
- Wang:2017:SDC**
- Xinyu Wang, Isil Dillig, and Rishabh Singh. Synthesis of data completion scripts using finite tree automata. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):62:1–62:??, October 2017. CODEN ???? ISSN 2475-1421.
- Wang:2018:PSU**
- Xinyu Wang, Isil Dillig, and Rishabh Singh. Program synthesis using abstraction refinement. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):63:1–63:??, January 2018. CODEN ???? ISSN 2475-1421.
- Wang:2020:VE**
- [WFB+20] Chenglong Wang, Yu Feng, Rastislav Bodik, Alvin Cheung, and Isil Dillig. Visualization by example. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):49:1–49:28, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371117>.

- Wang:2020:PES**
- [WFC<sup>+</sup>20] Peixin Wang, Hongfei Fu, Krishnendu Chatterjee, Yuxin Deng, and Ming Xu. Proving expected sensitivity of probabilistic programs with randomized variable-dependent termination time. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL): 25:1–25:30, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371093>.
- Watanabe:2021:CSH**
- [WGP<sup>+</sup>21] Yasunari Watanabe, Kiran Gopinathan, George Pirlea, Nadia Polikarpova, and Ilya Sergey. Certifying the synthesis of heap-manipulating programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP): 84:1–84:29, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473589>.
- Wang:2019:TGW**
- [WH19] Di Wang and Jan Hoffmann. Type-guided worst-case input generation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL): 13:1–13:30, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290326>.
- Wang:2019:IEM**
- [WHZ<sup>+</sup>19] Yu-Ping Wang, Xu-Qiang Hu, Zi-Xin Zou, Wende Tan, and Gang Tan. IVT: an efficient method for sharing subtype polymorphic objects. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):130:1–130:22, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360556>.
- Wagner:2023:EBV**
- [WJS23] Christopher Wagner, Nouraldin Jaber, and Roopsha Samanta. Enabling bounded verification of doubly-unbounded distributed agreement-based systems via bounded regions. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1):81:1–81:??, April 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586033>.
- Wang:2020:REA**
- [WKH20] Di Wang, David M. Kahn, and Jan Hoffmann. Raising expectations: automating expected cost analysis with types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):110:1–110:31, August 2020. URL <https://dl.acm.org/doi/10.1145/3408992>.
- Wang:2023:UCT**
- [WKN<sup>+</sup>23] Bo Wang, Aashish Kolluri, Ivica Nikolić, Teodora Baluta, and Prateek Saxena. User-customizable transpilation of scripting languages. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7

- (OOPSLA1):82:1–82:??, April 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586034>. [WLSJ+23]
- Weisenburger:2018:DSD**
- [WKS18] Pascal Weisenburger, Mirko Köhler, and Guido Salvaneschi. Distributed system development with ScalaLoc. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (OOPSLA):129:1–129:30, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276499>. ■
- Wang:2023:SCL**
- [WL23] Chenglin Wang and Fangzhen Lin. Solving conditional linear recurrences for program verification: The periodic case. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7 (OOPSLA1):76:1–76:??, April 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586028>. [WMLK18]
- Wang:2023:CSL**
- YanJun Wang, Zixuan Li, Chuan Jiang, Xiaokang Qiu, and Sanjay Rao. Comparative synthesis: Learning near-optimal network designs by query. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):4:1–4:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571197>.
- Wong:2018:FVE**
- [WMLK18] Chu-Pan Wong, Jens Meinicke, Lukas Lazarek, and Christian Kästner. Faster variational execution with transparent bytecode transformation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2 (OOPSLA):117:1–117:30, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276487>. ■
- Weidner:2020:CDO**
- [WMM20] Matthew Weidner, Heather Miller, and Christopher Meiklejohn. Composing and decomposing op-based CRDTs with semidirect products. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):94:1–94:27, August 2020. URL <https://dl.acm.org/doi/10.1145/3408976>.
- Weitz:2017:SLB**
- [WLH<sup>+</sup>17] Konstantin Weitz, Steven Lyubomirsky, Stefan Heule, Emina Torlak, Michael D. Ernst, and Zachary Tatlock. SpaceSearch: a library for building and verifying solver-aided tools. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):25:1–25:??, September 2017. CODEN ???? ISSN 2475-1421. [WMW18]
- Williams:2018:RCB**
- Jack Williams, J. Garrett Morris, and Philip Wadler. The

- root cause of blame: contracts for intersection and union types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):134:1–134:29, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276504>. **Watt:2019:WW**
- [WRPP19] Conrad Watt, Andreas Rossberg, and Jean Pichon-Pharabod. Weakening WebAssembly. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):133:1–133:28, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360559>. **Walia:2019:HLI**
- [WNC<sup>+</sup>19] Rajan Walia, Praveen Narayanan, Jacques Carette, Sam Tobin-Hochstadt, and Chung chieh Shan. From high-level inference algorithms to efficient code. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):98:1–98:30, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341702>. **Wu:2020:HII**
- [WSG<sup>+</sup>20] Zhefeng Wu, Zhe Sun, Kai Gong, Lingyun Chen, Bin Liao, and Yihua Jin. Hidden inheritance: an inline caching design for TypeScript performance. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):174:1–174:29, November 2020. URL <https://dl.acm.org/doi/10.1145/3428242>. **Willsey:2021:EFE**
- [WNW<sup>+</sup>21] Max Willsey, Chandrakana Nandi, Yisu Remy Wang, Oliver Flatt, Zachary Tatlock, and Pavel Panchekha. egg: Fast and extensible equality saturation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):23:1–23:29, January 2021. URL <https://dl.acm.org/doi/10.1145/3434304>. **Wimmer:2019:IOS**
- [WSH<sup>+</sup>19] Christian Wimmer, Codrut Stancu, Peter Hofer, Vojin Jovanovic, Paul Wögerer, Peter B. Kessler, Oleg Pliss, and Thomas Würthinger. Initialize once, start fast: application initialization at build time. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):184:1–184:29, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360610>. **Williams:2018:PAO**
- [WR18] Thomas Williams and Didier Rémy. A principled approach to ornamentation in ML. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(POPL):21:1–21:??, January 2018. CODEN ???? ISSN 2475-1421. **Weirich:2017:SDT**
- [WVdAE17] Stephanie Weirich, Antoine Voizard, Pedro Henrique Azevedo de Amorim, and Richard A.

- Eisenberg. A specification for dependent types in Haskell. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP):31:1–31:??, September 2017. CODEN ????? ISSN 2475-1421. **Willis:2020:SSP**
- [WWP20] Peng Wang, Di Wang, and Adam Chlipala. TiML: a functional language for practical complexity analysis with invariants. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):79:1–79:??, October 2017. CODEN ????? ISSN 2475-1421. **Wang:2017:TFL**
- [WWC17] Yuepeng Wang, Xinyu Wang, and Isil Dillig. Relational program synthesis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):155:1–155:27, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276525>. **Wang:2018:RPS**
- [WWD18] Yu Wang, Ke Wang, Fengjuan Gao, and Linzhang Wang. Learning semantic program embeddings with graph interval neural network. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):137:1–137:27, November 2020. URL <https://dl.acm.org/doi/10.1145/3428205>. **Wang:2020:LSP**
- [WWGW20] Jamie Willis, Nicolas Wu, and Matthew Pickering. Staged selective parser combinators. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):120:1–120:30, August 2020. URL <https://dl.acm.org/doi/10.1145/3409002>. **Wang:2020:CVS**
- [WXWS20] Yuting Wang, Xiangzhe Xu, Pierre Wilke, and Zhong Shao. CompCertELF: verified separate compilation of C programs into ELF object files. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):197:1–197:28, November 2020. URL <https://dl.acm.org/doi/10.1145/3428265>. **Westrick:2020:DNP**
- [WYFA20] Sam Westrick, Rohan Yadav, Matthew Fluet, and Umut A. Acar. Disentanglement in nested-parallel programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):47:1–47:32, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371115>. **Wang:2022:CGC**
- [WYT<sup>+</sup>22] Chengpeng Wang, Peisen Yao, Wensheng Tang, Qingkai Shi, and Charles Zhang. Complexity-guided container replacement synthesis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):

- 68:1–68:31, April 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527312>.
- [WZD<sup>+</sup>19] Fei Wang, Daniel Zheng, James Decker, Xilun Wu, Grégory M. Essertel, and Tiark Rompf. Demystifying differentiable programming: shift/reset the penultimate backpropagator. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):96:1–96:31, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341700>.
- [WZS19] Shuai Wang, Chengyu Zhang, and Zhendong Su. Detecting nondeterministic payment bugs in Ethereum smart contracts. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):189:1–189:29, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360615>.
- [WZS20] Dominik Winterer, Chengyu Zhang, and Zhendong Su. On the unusual effectiveness of type-aware operator mutations for testing SMT solvers. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):193:1–193:25, November 2020. URL <https://dl.acm.org/doi/abs/10.1145/3428261>.
- [WZSK22] Yuting Wang, Ling Zhang, Zhong Shao, and Jérémie Koenig. Verified compilation of C programs with a nominal memory model. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):25:1–25:31, January 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498686>.
- [XBH<sup>+</sup>20] Ningning Xie, Jonathan Immanuel Brachthäuser, Daniel Hillerström, Philipp Schuster, and Daan Leijen. Effect handlers, evidently. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(ICFP):99:1–99:29, August 2020. URL <https://dl.acm.org/doi/10.1145/3408981>.
- [XCB<sup>+</sup>18] Xiaoran Xu, Keith Cooper, Jacob Brock, Yan Zhang, and Handong Ye. Share-JIT: JIT code cache sharing across processes and its practical implementation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):124:1–124:23, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276494>.

- Xie:2022:FCN**
- [XCIL22] Ningning Xie, Youyou Cong, Kazuki Ikemori, and Daan Leijen. First-class names for effect handlers. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA2):126:1–126:??, October 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563289>.
- Xie:2020:KID**
- [XEdSO20] Ningning Xie, Richard A. Eisenberg, and Bruno C. d. S. Oliveira. Kind inference for datatypes. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):53:1–53:28, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371121>.
- Xu:2023:MTD**
- [XHdSO23] Han Xu, Xuejing Huang, and Bruno C. d. S. Oliveira. Making a type difference: Subtraction on intersection types as generalized record operations. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):31:1–31:??, January 2023. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571224>.
- Xu:2021:CPC**
- [XK21] Haoran Xu and Fredrik Kjolstad. Copy-and-patch compilation: a fast compilation algorithm for high-level languages and bytecode. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5 (OOPSLA):136:1–136:30, October 2021. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485513>.
- Xie:2021:GEP**
- [XL21] Ningning Xie and Daan Leijen. Generalized evidence passing for effect handlers: efficient compilation of effect handlers to C. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):71:1–71:30, August 2021. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473576>.
- Xiang:2020:PIE**
- [XLD20] Tongtong Xiang, Jeff Y. Luo, and Werner Dietl. Precise inference of expressive units of measurement types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):142:1–142:28, November 2020. URL <https://dl.acm.org/doi/10.1145/3428210>.
- Xie:2022:SCS**
- [XPL+22] Ningning Xie, Matthew Pickering, Andres Löb, Nicolas Wu, Jeremy Yallop, and Meng Wang. Staging with class: a specification for typed template Haskell. *Proceedings of*

- the ACM on Programming Languages (PACMPL)*, 6(POPL): 61:1–61:30, January 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498723>. [YAY20]
- Xu:2023:PLM**
- [XTZ<sup>+</sup>23] Zhenyang Xu, Yongqiang Tian, Mengxiao Zhang, Gaosen Zhao, Yu Jiang, and Chengnian Sun. Pushing the limit of 1-minimality of language-agnostic program reduction. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1):97:1–97:??, April 2023. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586049>. [YC22]
- Yang:2021:SDR**
- [YAC21] Cambridge Yang, Eric Atkinson, and Michael Carbin. Simplifying dependent reductions in the polyhedral model. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(POPL):20:1–20:33, January 2021. URL <https://dl.acm.org/doi/10.1145/3434301>. [YD22]
- Yallop:2017:SGP**
- [Yal17] Jeremy Yallop. Staged generic programming. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(ICFP): 29:1–29:??, September 2017. CODEN ????. ISSN 2475-1421.
- Yefet:2020:AEM**
- Noam Yefet, Uri Alon, and Eran Yahav. Adversarial examples for models of code. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):162:1–162:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428230>.
- Yuan:2022:TDS**
- Charles Yuan and Michael Carbin. Tower: data structures in quantum superposition. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):134:1–134:??, October 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563297>.
- Ye:2022:OAD**
- Qianchuan Ye and Benjamin Delaware. Oblivious algebraic data types. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):51:1–51:29, January 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498713>.
- Yanovski:2021:PGS**
- [YDJD21] Joshua Yanovski, Hoang-Hai Dang, Ralf Jung, and Derek Dreyer. GhostCell: separating permissions from data in Rust. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):

- 92:1–92:30, August 2021. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473597>.
- [YdSO17] Yanpeng Yang and Bruno C. d. S. Oliveira. Unifying typing and subtyping. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1 (OOPSLA):47:1–47:??, October 2017. CODEN ????. ISSN 2475-1421.
- [YF18] Brent A. Yorgey and Kenneth Foner. What’s the difference? A functional pearl on subtracting bijections. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):101:1–101:21, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236796>.
- [YGG<sup>+</sup>23] Yongwei Yuan, Scott Guest, Eric Griffis, Hannah Potter, David Moon, and Cyrus Omar. Live pattern matching with typed holes. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7 (OOPSLA1):96:1–96:??, April 2023. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586048>.
- [YHW20] Qianshan Yu, Fei He, and Bow-Yaw Wang. Incremental predicate analysis for regression verification. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):184:1–184:25, November 2020. URL <https://dl.acm.org/doi/10.1145/3428252>.
- [YJY22] Peng Yan, Hanru Jiang, and Nengkun Yu. On incorrectness logic for quantum programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA1):72:1–72:28, April 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527316>.
- [yKMUW22] Shin ya Katsumata, Dylan McDermott, Tarmo Uustalu, and Nicolas Wu. Flexible presentations of graded monads. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):123:1–123:??, August 2022. CODEN ????. ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547654>.
- [YM21] Pengbo Yan and Toby Murray. SecRSL: security separation logic for C11 release-acquire concurrency. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):99:1–99:26, October 2021. CODEN ????. ISSN

**Yang:2017:UTS****Yan:2022:ILQ****Yorgey:2018:WDF****Katsumata:2022:FPG****Yuan:2023:LPM****Yan:2021:PSS****Yu:2020:IPA**

- 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485476>.
- [YMC22] Charles Yuan, Christopher McNally, and Michael Carbin. Twist: sound reasoning for purity and entanglement in quantum programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):30:1–30:32, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498691>.
- [YMDW21] Masaomi Yamaguchi, Kazutaka Matsuda, Cristina David, and Meng Wang. Synbit: synthesizing bidirectional programs using unidirectional sketches. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):105:1–105:31, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485482>.
- [YMJ17] Binhang Yuan, Vijayaraghavan Murali, and Christopher Jermaine. Abridging source code. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):58:1–58:??, October 2017. CODEN ???? ISSN 2475-1421.
- [YNIC19] Tetsuro Yamazaki, Tomoki Nakamaru, Kazuhiro Ichikawa, and Shigeru Chiba. Generating a fluent API with syntax checking from an LR grammar. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(OOPSLA):134:1–134:24, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360560>.
- [YSHZ21] Peisen Yao, Qingkai Shi, Heqing Huang, and Charles Zhang. Program analysis via efficient symbolic abstraction. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):118:1–118:32, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485495>.
- [YTO23] Wenjia Ye, Matías Toro, and Federico Olmedo. A gradual probabilistic Lambda calculus. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(OOPSLA1):84:1–84:??, April 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586036>.
- [YvGK18] Jeremy Yallop, Tamara von Glehn, and Ohad Kammar. Partially-static data as free extension of algebras. *Proceed-*

**Yamazaki:2019:GFA****Yuan:2022:TSR****Yao:2021:PAE****Yamaguchi:2021:PSS****Ye:2023:GPL****Yuan:2017:ASC****Yallop:2018:PSD**

- ings of the ACM on Programming Languages (PACMPL)*, 2(ICFP):100:1–100:30, July 2018. URL <https://dl.acm.org/doi/abs/10.1145/3236795> **Yallop:2019:LUS**
- [YW19] Jeremy Yallop and Leo White. Lambda: the ultimate sublanguage (experience report). *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):116:1–116:17, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3342713> **Yallop:2019:LUS** **YZZ22**
- [YW21] Zhixuan Yang and Nicolas Wu. Reasoning about effect interaction by fusion. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):73:1–73:29, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473578> **Yang:2021:RAE** [ZA22]
- [YWDD17] Navid Yaghmazadeh, Yuepeng Wang, Isil Dillig, and Thomas Dillig. SQLizer: query synthesis from natural language. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1(OOPSLA):63:1–63:??, October 2017. CODEN ???? ISSN 2475-1421. **Yaghmazadeh:2017:SQS**
- [yXZH<sup>+</sup>20] Li yao Xia, Yannick Zakowski, Paul He, Chung-Kil Hur, Gregory Malecha, Benjamin C. Pierce, and Steve Zdancewic. Interaction trees: representing recursive and impure programs in Coq. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):51:1–51:32, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371119>. **Yoon:2022:FRA**
- Irene Yoon, Yannick Zakowski, and Steve Zdancewic. Formal reasoning about layered monadic interpreters. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(ICFP):99:1–99:??, August 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3547630>. **Zhang:2022:RAR**
- Yizhou Zhang and Nada Amin. Reasoning about “reasoning about reasoning”: semantics and contextual equivalence for probabilistic programs with nested queries and recursion. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):16:1–16:28, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498677>. **Zhang:2022:OLP**
- [ZBG<sup>+</sup>22] Yuhao Zhang, Yasharth Bajpai, Priyanshu Gupta, Ameya Ketkar, Miltiadis Allamanis, Titus Barik, Sumit Gulwani,

- Arjun Radhakrishna, Mohammad Raza, Gustavo Soares, and Ashish Tiwari. Overwatch: learning patterns in code edit sequences. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA2):139:1–139:??, October 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563302>.
- [ZBS<sup>+</sup>22] Zihan Zhao, Sidi Mohamed Beillahi, Ryan Song, Yuxi Cai, Andreas Veneris, and Fan Long. SigVM: enabling event-driven execution for truly decentralized smart contracts. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA2):149:1–149:??, October 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563312>.
- [ZBS<sup>+</sup>23] Li Zhou, Gilles Barthe, Pierre-Yves Strub, Junyi Liu, and Mingsheng Ying. CoqQ: Foundational verification of quantum programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):29:1–29:??, January 2023. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571222>.
- [ZBY<sup>+</sup>21] Yannick Zakowski, Calvin Beck, Irene Yoon, Ilia Zaichuk, Vadim Zaliva, and Steve Zdancewic. Modular, compositional, and executable formal semantics for LLVM IR. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):67:1–67:30, August 2021. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473572>.
- [ZCH23] Jie Zhou, John Criswell, and Michael Hicks. Fat pointers for temporal memory safety of C. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7 (OOPSLA1):86:1–86:??, April 2023. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586038>.
- [ZdAG22] Cheng Zhang, Arthur Azevedo de Amorim, and Marco Gaboardi. On incorrectness logic and Kleene algebra with top and tests. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):29:1–29:30, January 2022. CODEN ????? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498690>.
- [ZDDJ21] Zhe Zhou, Robert Dickerson, Benjamin Delaware, and

**Zhao:2022:SEE****Zhou:2023:FPT****Zhou:2023:CFV****Zhang:2022:ILK****Zakowski:2021:MCE****Zhou:2021:DDA**

- Suresh Jagannathan. Data-driven abductive inference of library specifications. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5 (OOPSLA):116:1–116:29, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485493>. [ZFH<sup>+</sup>20]
- Zilberstein:2023:OLU**
- [ZDS23] Noam Zilberstein, Derek Dreyer, and Alexandra Silva. Outcome logic: a unifying foundation for correctness and incorrectness reasoning. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7 (OOPSLA1):93:1–93:??, April 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586045>. [ZFS<sup>+</sup>19]
- Zhao:2019:MFH**
- [ZdSOS19] Jinxu Zhao, Bruno C. d. S. Oliveira, and Tom Schrijvers. A mechanical formalization of higher-ranked polymorphic type inference. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(ICFP):112:1–112:29, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341716>. [ZGHH23]
- Zhou:2020:RIR**
- [ZdSOZ20] Yaoda Zhou, Bruno C. d. S. Oliveira, and Jinxu Zhao. Revisiting iso-recursive subtyping. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):223:1–223:28, November 2020. URL <https://dl.acm.org/doi/10.1145/3428291>. **Zhou:2020:SVR**
- Fangyi Zhou, Francisco Ferreira, Raymond Hu, Rumyana Neykova, and Nobuko Yoshida. Statically verified refinements for multiparty protocols. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):148:1–148:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428216>. **Zuriel:2019:ELF**
- Yoav Zuriel, Michal Friedman, Gali Sheffi, Nachshon Cohen, and Erez Petrank. Efficient lock-free durable sets. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (OOPSLA):128:1–128:26, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360554>. **Zhang:2023:BOO**
- Xing Zhang, Guanchen Guo, Xiao He, and Zhenjiang Hu. Bidirectional object-oriented programming: Towards programmatic and direct manipulation of objects. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7 (OOPSLA1):83:1–83:??, April 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586035>.

- [ZGS<sup>+</sup>22] **Zou:2022:OFR** Daming Zou, Yuchen Gu, Yuanfeng Shi, MingZhe Wang, Yingfei Xiong, and Zhen-dong Su. Oracle-free repair synthesis for floating-point programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6 (OOPSLA2):159:1–159:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563322>.
- [ZGSN17] **Zhang:2017:EIR** Xin Zhang, Radu Grigore, Xujie Si, and Mayur Naik. Effective interactive resolution of static analysis alarms. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1 (OOPSLA):57:1–57:??, October 2017. CODEN ???? ISSN 2475-1421.
- [ZH18] **Zhu:2018:CRS** Fengmin Zhu and Fei He. Conflict resolution for structured merge via version space algebra. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):166:1–166:25, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276536>.
- [ZHL<sup>+</sup>20] **Zhang:2020:DPS** Hailong Zhang, Yu Hao, Sufian Latif, Raef Bassily, and Atanas Rountev. Differentially-private software frequency profiling under linear constraints. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4 (OOPSLA):203:1–203:24, November 2020. URL <https://dl.acm.org/doi/10.1145/3428271>.
- [ZK22] **Zhang:2022:QSP** Linpeng Zhang and Benjamin Lucien Kaminski. Quantitative strongest post: a calculus for reasoning about the flow of quantitative information. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA1):87:1–87:29, April 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3527331>.
- [ZM17] **Zhang:2017:FUI** Yizhou Zhang and Andrew C. Myers. Familia: unifying interfaces, type classes, and family polymorphism. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1 (OOPSLA):70:1–70:??, October 2017. CODEN ???? ISSN 2475-1421.
- [ZM19] **Zhang:2019:ASE** Yizhou Zhang and Andrew C. Myers. Abstraction-safe effect handlers via tunneling. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3(POPL):5:1–5:29, January 2019. URL <https://dl.acm.org/doi/abs/10.1145/3290318>.

- Zhang:2023:ATF**
- [ZMSD23] Guoqiang Zhang, Benjamin Mariano, Xipeng Shen, and Işıl Dillig. Automated translation of functional big data queries to SQL. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7 (OOPSLA1):95:1–95:??, April 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3586047>.
- Zyuzin:2021:CMT**
- [ZN21] Nikita Zyuzin and Aleksandar Nanevski. Contextual modal types for algebraic effects and handlers. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(ICFP):75:1–75:29, August 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3473580>.
- Zhai:2017:ALP**
- [ZPG<sup>+</sup>17] Ennan Zhai, Ruzica Piskac, Ronghui Gu, Xun Lao, and Xi Wang. An auditing language for preventing correlated failures in the cloud. *Proceedings of the ACM on Programming Languages (PACMPL)*, 1 (OOPSLA):97:1–97:??, October 2017. CODEN ???? ISSN 2475-1421.
- Zhang:2021:SDS**
- [ZPZX21] Jialu Zhang, Ruzica Piskac, Ennan Zhai, and Tianyin Xu. Static detection of silent mis-
- configurations with deep interaction analysis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5 (OOPSLA):140:1–140:30, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485517>.
- Zhou:2021:INM**
- [ZR21] Ziqiao Zhou and Michael K. Reiter. Interpretable noninterference measurement and its application to processor designs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5 (OOPSLA):141:1–141:30, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485518>.
- Zhang:2019:FTL**
- [ZRH<sup>+</sup>19] Hengchu Zhang, Edo Roth, Andreas Haeberlen, Benjamin C. Pierce, and Aaron Roth. Fuzzi: a three-level logic for differential privacy. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (ICFP):93:1–93:28, July 2019. URL <https://dl.acm.org/doi/abs/10.1145/3341697>.
- Zhang:2020:TDP**
- [ZRH<sup>+</sup>20] Hengchu Zhang, Edo Roth, Andreas Haeberlen, Benjamin C. Pierce, and Aaron Roth. Testing differential privacy with dual interpreters. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4

- (OOPSLA):165:1–165:26, November 2020. URL <https://dl.acm.org/doi/10.1145/3428233>. [//dl.acm.org/doi/10.1145/3563303](https://dl.acm.org/doi/10.1145/3563303). Zhang:2022:RM
- [ZSL<sup>+</sup>22] Fengmin Zhu, Michael Sammler, Rodolphe Lepigre, Derek Dreyer, and Deepak Garg. BFF: foundational and automated verification of bitfield-manipulating programs. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):182:1–182:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3563345>. Zhu:2022:BFA [ZWWT22] Yihong Zhang, Yisu Remy Wang, Max Willsey, and Zachary Tatlock. Relational e-matching. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(POPL):35:1–35:22, January 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3498696>. Zhang:2021:UST
- [ZSM20] Yizhou Zhang, Guido Salvaneschi, and Andrew C. Myers. Handling bidirectional control flow. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(OOPSLA):139:1–139:30, November 2020. URL <https://dl.acm.org/doi/10.1145/3428207>. Zhang:2020:HBC [ZXSD21] Guoqiang Zhang, Yuanchao Xu, Xipeng Shen, and Isil Dillig. UDF to SQL translation through compositional lazy inductive synthesis. *Proceedings of the ACM on Programming Languages (PACMPL)*, 5(OOPSLA):112:1–112:26, October 2021. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3485489>. Zhang:2018:GHP
- [ZvAV22] Aron Zwaan, Hendrik van Antwerpen, and Eelco Visser. Incremental type-checking for free: using scope graphs to derive incremental type-checkers. *Proceedings of the ACM on Programming Languages (PACMPL)*, 6(OOPSLA2):140:1–140:??, October 2022. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/abs/10.1145/3276491>. Zwaan:2022:ITC [ZYB<sup>+</sup>18] Yunming Zhang, Mengjiao Yang, Riyadh Baghdadi, Shoaib Kamil, Julian Shun, and Saman Amarasinghe. GraphIt: a high-performance graph DSL. *Proceedings of the ACM on Programming Languages (PACMPL)*, 2(OOPSLA):121:1–121:30, October 2018. URL <https://dl.acm.org/doi/abs/10.1145/3276491>.

**Zhang:2019:BPD**

- [ZYT<sup>+</sup>19] Zhuo Zhang, Wei You, Guanhong Tao, Guannan Wei, Yonghwi Kwon, and Xianguyu Zhang. BDA: practical dependence analysis for binary executables by unbiased whole-program path sampling and per-path abstract interpretation. *Proceedings of the ACM on Programming Languages (PACMPL)*, 3 (OOPSLA):137:1–137:31, October 2019. URL <https://dl.acm.org/doi/abs/10.1145/3360563>. ■

**Zhou:2023:RSA**

- [ZZdSO23] Litao Zhou, Yaoda Zhou, and Bruno C. d. S. Oliveira. Recursive subtyping for all. *Proceedings of the ACM on Programming Languages (PACMPL)*, 7(POPL):48:1–48:??, January 2023. CODEN ???? ISSN 2475-1421 (electronic). URL <https://dl.acm.org/doi/10.1145/3571241>. ■

**Zou:2020:DFP**

- [ZZX<sup>+</sup>20] Daming Zou, Muhan Zeng, Yingfei Xiong, Zhoulai Fu, Lu Zhang, and Zhendong Su. Detecting floating-point errors via atomic conditions. *Proceedings of the ACM on Programming Languages (PACMPL)*, 4(POPL):60:1–60:27, January 2020. URL <https://dl.acm.org/doi/abs/10.1145/3371128>. ■