A Bibliography of Publications about Bitcoin and Digital Cash Systems

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Title word cross-reference

$1.2M [McM13]. $10 [Pop17a]. 100× [CEN14]. $145 [Cim19]. $190 [McK19].
$1m [Sou13]. $2 [Goo18]. $28.5 [Gre13].
$3.3 [Cim18a]. $37 [Lee13]. $400 [Nak18].
$400M [Gal18]. $530 [YWW+18, YWS+18]. $62m [Nic17]. $735
[Osb18b]. δ [LL17b, LL17c]. PCS
[KLR+17a]. N [ZGR17].

-Bitcoin- [BS17a]. -privacy [LL17b, LL17c].

1 [BH15]. 150 [Woo14]. 16th [Ker12]. 17 [ACM17c].
17th [Sad13]. 18-Month [De18].
2.0 [AMLH18, SI16, Six17b, SALY17, Uli16].

2014 [Uni14]. 20th [GP17b].
34th [OF15]. 3rd [ACM17d].

83 [CRS83]. 8th [Jue04].

Ability [SGF+17]. Abstract
[BLMR14, DNSY14, Hil14, Hut17]. absurd
[Fai19]. Abu [ACM17a, ACM17b, ACM17d].
Abuse [VBC+17]. Academic
[LHZ17, NC17b]. Accelerating
[GADO17, SZ13]. acceleration [Dev14].
Acceptance [Hut17]. Access
[DMR17b, DMR19, HHK18, ISM17, OEO16,
OEO17, AAC+19, Cim19, DSN17, Gir18,
LHH+18, SI16]. Account [ZWQ+16].
Accountability
[GP17a, HM16, KAR+15, NSNF17].
Accountable
[BNM+14, VR15, vdHEM+17]. Accounting
[But13a, GCD16, Gr11, Hill14, Kel15, KH17].

Accoumultor-Based [SALY17].

Acéphale [TFG17]. ACIDRain [WB17].

ACM [ACM17a, ACM17b, ACM17d].

ACNS [IKY05]. Acquire [RS14]. Across
[BG16, GCL16]. act [Pec15]. active
[Goo18]. Activities [ME17]. Activity
[BLMR14, CTM19, RRM18, Sm118, YNS16].

Activity-Based [YNS16].

Ad-hoc [CFG16, LMH16]. Adaptable [LX17].

Added [WLSZ17]. Adding
[DGHK17, Dre17z]. Address
[EPY17, FFKH17, HM16, NH17, WLY17].
Goo18, SPZ+20. Addresses
[Cha81, GCL16]. Addressing [DNP17].

Ad-hocracies [Ui16]. Adjusting
[KK17, Kj18]. admin [Cim69].

administration [AR15]. Adoption
[BBB15, Bö13, Fug19, Gou19, Mei18].

Advances [CRS83, OF15]. Advancing
[BS17a, BLNN17b]. advantage [PR16].

adversaries [KDF13]. advice [Far18b].

Affect [Mic14]. affected [FB17a]. affine
[CS15]. Affinities [KD16]. Afford
[BBH+13]. Affordances [Ve16].

After [KKS+17c, McK19, YWW+18, YWS+18].

Abe18, Cim19. K.13. again [Cim19].

Against [ABL+18, JLG+14, ZP17b, Bee16].

Boi18, EGB18, YSLH17]. Age
[Tay13, Fin17b, VC15a]. Agenda
[GK14, CRdK16]. Agent [CTM19, Sko19].

ai [Liu18, BT18a, BKS19, DT18]. aided
[AC19, Sko19]. aim [Sal18]. Air [Ro13].

Aircraft [Ale18a]. Aktuelle [Six17a].

Algorand [CM19]. Algorithm
[DLL97, P16a, SYB14, Ste17, Che18].

DLL00, HZLH19]. Algorithmic
[BT18a, LN15, Lus18, Ro18, Gs15a].

Algorithms [Bik16, Gou19, vM18, Fin17b].

Alle [GH17]. Alleged [Gre13]. Allocation
[JWNS19]. Almost [Coe08, IM16]. along
[Mei18]. Alternative [Bhe17a, BLNN17b].
But13a, GCD16, Gr11, Hill14, Kel15, KH17].

Am [AABM17, XGS+20]. Among
[Dre17g, MPJ+13, CK16, HS19a, MPJ+16].

Amortizable [Bac02b]. Amortizing
[KB16]. Amounts [AK14]. Amplifying
[ABF+16]. Analysis
[AS14, AC17, BRS17, BP17a, BP14, Chr13].
Cor19, DNP17, EKK+17, FNP17, Gao17].

Gos17, HQL14, JLG+14, JCG17].


Analytical [KK17a, KK17b]. Analytics
[BLPB17, BS17a, M19]. Analyze
[DS15, WLS16]. Anonymizing
[BB17a, BM16]. Anonymous
[BS17a, BO17c, Chr13]. GM17, HBG16, MGGR13, M14, Muf16, SCG+14, MY11, ZIM+17, ZIM+18].

Answers [Pav18]. Anti [Alz19, Bra13].

Anti-Counterfeiting [Alz19]. Anti-Theft
[Bra13]. Anwendung [WLS17].

Anwendungsfall [FRSU17]. anything
[Nor17a]. apologizes [Gal18]. App
Append [Osb18a]. Appetite
[Pop18a]. Applicability [Scr18, Alv18].
WYZ+20, Bre17, Cra17, Gon17, Hol18, MYSZ19, Sal18, Aro12, CSG+18, CrdK16, ABL+18a, AABE20, ALP15, ACM15, Ali15, AMLH15, AMLH18, AS14, AF16, ALMLS16, ALPBT17, And14, AKR+13, AK14, ADM14a, ADM14b, ADMM14, ADMM15, ADMM16, AM15, Ano13b, Ano14a, Ano14b, Ano17b, Ano17c, Ano17d, Ano18b, Ano18h, Ant16, Ant15, AZV17, Ast16, AMVA17, ACC+17, BDOZ11, BDOZ12, BMTZ17, BS16, BRS17, BDWW14, BHMW16, BBSU12, Bar17, BHI+14, BH15, Bar14, BP17a, BZ17, BLP17, BPP19, BS16, BDP+15, BBBB15, Bec18, BHI+13, Bee16, BS15, Bel18, BSCG+14, BK14, BLMR14, Ber15, Ber13, Bik16, BK14, BBR14, BP17a, CZ17, DLP17, DPP19, DS16, DFP17, GJ17, Hea13, HBG16, HG15, HBJB14, HJ15, HJPS16, Hil14, Hil15, Hol13, HM18, Hou14a, Hou14b, Hou16, HGW+18, HJ14, Hur16, Hut17, IM16, JL17, JKKX16, JMM14, JZLL17, JLG+14, Joh19, JSK+17, K.13, KAČ12, KAR+15, KA16, Kar16, Kat17, KBS17, KN17, Kay17, KRL17, Kel15, Ker14, KCD17, KSDC16, Kha19, Kha15, KH17, KT15, KKS14, KH16, KCS+14, KKM14, KKS+17a, KD16, KL17, KDF13, KJGW17, Kr13, KB14, KMB15, Küm16, KK17b.

**Bitcoin**

[KK5+17b, KKS+17c, LB18, LMLA17, LJG15, Lec13, Lec15, LW16, LD17, LBS+15, Li14a, Li14b, LZDA16, LK+14, LT17, LF16, LZC+17, LZZ+17, LSH13, LN15, Lus18, Lut17, LSP+15, CVfdPS15, MMR16, MG16, ML15, ML17, Mat13, Mat14, ML15, MHL16, MHH+16, MPSW19, MSH15, MSHM16, MO15, Men19, Mic16, Mic14, MGGR13, ML14, MKKS14, MJS+14, MKKS15, Mil15, MB17, MM17, MK15, Mö13, MMT16b, MMT16a, MC15, MCM14, MBB13b, MBB14, MB15, MES16, MBB13a, Mul14a, Mul14c, Mul14d, Mul14f, Mul14g, Mul14h, NC17a, Nak08a, Nak08b, NBF+16, NC17b, Nav17, NM16, NAH15, NAH16, NHC17, Nic17, Nis16a, Nis16b, OM14, OKH13, Oh16, Ort16, Peo13, Pav18, Pec13, Pec15, Pec16, P16, PS16, PSSDNAH19, PR16, Pla13, Pla15, Pop16b, Pop17a, Pop18a, Pop18b].

**Bitcoin**

[PHD+17, Pro13, Pro14, RAH+15, RJK+17, Ras13, Rec19, RH11, RH13, RRM18, Riz16, Ro13, Ro13, RS13, RS14, Ros11, Rot17, RMSK14, RMS17, SBL19, SCYP17, SOA17, SI16, San14b, San14a, SSZ17, SK14, SK15, SK17, SCG+14, SMD14, Sch13, SBBR17, SBRS16, SZ14, Sha17, SGF+17, Shi16, Sid14, SCAA13, Sir16a, Sir16b, Six17a, Six17b, Six17d, Six17c, Six17h, Six17f, Six17i, Six17j, SL15, Sm18, SP17, SZ13, SZ15, SZ17, SZ18, Son14, Son16b, SKG12, SKG13, Sou13, SMZ14, Ste17, Swa15a, SVS18, TFG17,
TT16, TTC16, Tay13, Tay17, TD17b, TOM17, TS16, Und14, UJ16, Uri17, Urq17, VR15, VG17, Van14a, VCLK17, Van14b, VGJ15, VTM14, VM15, VBC17, Vas17, Vel16, VTL17, VFV17a, VFV17b, VC15a, Vig15, VC15b, VDK16.

Bitcoin [Van14b, Vas17, HCW18], Bitcoin-Exchange [MC13], Bitcoin-Handbuch [MG16], Bitcoin-like [VGJ15], bitcoin-mining [Hol18], Bitcoin-Netzwerks [Six17h], Bitcoin-Okosphäre [Six17a], Bitcoin-Related [KCD17], Bitcoin-Systems [Six17j, Six17z], Bitcoin/USD [HG15], Bitcoinages [Ano15], BitConeView [BDP15], BitExTract [YSZ19], BitIodine [SMZ14], bitstrings [HS97], Bitter [BBU12], BIX [Muf16], Blackchain [vdHEM17], blamed [Ano18], Blind [Cha83, WZQ17], Blindcoin [VR15], Blinded [VR15], Blindly [HBG16], Block [BS16, BRS17, CKWN16, Dim19, HS19a, OAB17, SPB17, TSL17, ZP17a, GK17, Ler14a, PB17], block-chains [Ler14a], Block-Withouting [SPB17], BLOCKBENCH [DWC17], Blockchain [ACM17b, AS17, AK17, ABR17, AKP17, AKP18, ACA19, ACW17, AH19, AML19, ARBK17, Ale18a, Ale18b, AvM18, AAC19, Ali19, Alz19, ABL18b, Ano18c, Ano19c, ATD17, AMVA17, ACC17, AC17, Bai19, Ban18, Ban19, BABD17, BT18a, BLPB17, BART17, Bec18, Bee18, Bel18, BBGP19, BR17, BD19, BDP17a, Ber17, BLSD17, BKS19, BSV17, BK17a, BK18, Bhe17a, Blo18, BCM16, BKM17, BC16a, BO17, Brü17, BFS17, BFS18, BLNN17a, BLNN17b, But19, Cae15, CDD17, CMMN17, CG16, CR17, CBWF17, CIA19, CJW17, CXS17, CQLL18, CLC19, CGLR19, Chi18, Cob17, CP17, Cor19, CDS19, Dan17a, DNP17, DW18, DMH18b, DMH18c, DMH18d, DMH18h, DMH18k, DM17, DNZ19, DT18, Doz18, Dre17b, Dre17m, Dre17p, Dre17x, DF17b, DFR17, DP18, DF17a, ET17, EZ17], Blockchain [EZ18, Esc18, Eti19, Eya17, EN19, Fai17, FNP17, Fot17, FRSU17, Fulg19, Gao17, Gar17, GANAHHJ17, GDPW17, GBSAS17, GLD18, Gen17, Ger16, GR17, GCD16, God15, Gou19, GL16, Hal18, bAHRAK17, bAHRAK18, HL16, HBG16, HK18, HJPS16, HSB17b, HSB17a, HSB17c, HSB17d, HSB18d, HSB18f, HSB18e, HSB18g, HSB18h, HSB18i, HWC17, HP17, HP18, HV20, HTCW17, HTCW18, HLC17e, HW16, HS19b, Hull17, Hur16, HM19, HP19, HRF17, IPS17, IGRS16, ICR17, JB17a, JB17b, JB18a, JMK17, JL17, Jas18, JJB19, JDN19, Joh18, Kab17, KBT20, Kad18, KFN17, Kar16, KC18, KK17a, KG17, KKK17, KJ17, KJ18, Kla19, KET17, KUEE17, KUEE18, Koe17, KFR18, Kri19, Ksh17a, Ksh17b, Ksh18, KV18, Ksh20, Kue18, KV19, KFTS17, Kuz19b, KK17b, Las17], Blockchain [Lau17, LL16, LL17a, LMWL17, LQGY19, LMH16, LN17, LMR17, LLW17, LZY17, LABK17, LWY19, LST17, LK17, Lim18, LSM17, LP17b, LPW17a, LP17c, LP18a, LPW18, LP18b, Liu16, Liu19, LX17, Las18, Luu17, MMR16, Mah18, Mali18, Mal18, ME17, MH17, MSC15, MC18, MCLH19, Mer19, MCJ17, MHWK16, MK15, Mis17, Moh19, MRR17, Mor17a, Mor17b, Mor17f,

HSB18g, HSB18h, HSB18i, Kra16b, Kri19, Nia19, RK19, WCL17, Wu17, XRS+19, Che18, DF17b, NNGV19, PB17, FY19.

Chaining [ET17]. Chains [GKL17, JSK+17, Alv18, Ler14a, SZ13]. Challenges [ACM17c, BMC+15, HHK18, HJ15, HJPS16, MWV+18, Mul14a, Nav17, PS16, PMT17, RDDL17, SK17, Van14b, dCdCM14, ACA+19, And18, HRC19, KS18, MAAN19, MCLH19, SPZ+20]. challenging [VC15a, VC15b].


[CTM19, SCAA13, Kat17]. Compatibility
[SBYR17, ZGR17]. Compatible [ZP17b].
Complete [Wil13]. Complex [VA15].
Complexity [Bhe17b]. Compliance
[ECdO17, HV20, Lyn14]. Compliant
[Ban18]. Components [SD16a].
Composable [BMTZ17, JKKX16]. compraventa [HA15]. Comprehensive
[RMS17, NBF+16]. Computation
[CGJ+17, ET17, EL14, KB16, KVV16, LSP+15, BHH19]. Computational
[HWCL17, SC20, Li14a, Li14b]. Compute
[But13a]. Computer
[ACM17a, LTKS15, Son16a, Wor16]. computers
[Goo18, Hol18]. Computing
[Bee18, DMH18g, Ker18b, JWNS19, Kue18, LQYG19, LSH13, TMTB19, Wel18, Fin17b, Her19, HS19b, IFD+19, KGS+19].
concentration [LP18c]. Concept
[HSB17a, HSB18e, Shu17, Sdk+17, AC19]. concepts [BGPW16]. concerned [Far18b]. Concluding [Gev16]. Conclusion
[HSB17b, HSB18f, Mor17g]. Concurrency
[DGHK17, Kad18, MMSK+17, WB17]. Concurrency-Related [WB17]. Concurrent [OR17, RLT17]. Condensed
[JW16a]. Conference [ACM17a, ACM17c, GP17b, Ker12, OF15, Sad13, IKY05, Jue04]. Confidence [MG17]. Confidential
[CZJ+17, Nmt16, RMS17]. Confidentiality
[OR17]. Configurations [RC16].
Confirmation
[KK17a, ZGTT16, PSDSNAHJ19]. Conflict
[NOT15]. Conflict-Resolution
[NOT15]. Conflicts [LMLA17]. Congestion
[KJ17, KJ18]. Congressional [Dus14]. CONIKS [Bon16b, MB+15]. Connections
[HJB14]. Connectivity
[CGFH16]. conscience [Osb18a]. Consensus
[BLP17, Cor19, JSK+17, Kwo14, LTKS15, ML14, MHWK16, PS18, Poe14, SYB14, XLM+17, ZP17a, vM18, Brel17, FZC+20, KKS+17a, Kra15, Kra16a, WLC+20]. considerations [Dus14]. Consistency
[DSW16, Sal18, Sir16a]. consistent
[RST11]. consortium [HZHL19]. Constant
[BZ17, Coo08]. Constant-Deposit
[BZ17]. Constant-Eort
[Coe08]. Combinatorial
[HSL13, TMTB19, Wel18, Fin17b, Her19, HS19b, IFD+19, KGS+19].
compraventa [HA15]. Comprehensive
[RMS17, NBF+16]. Computation
[CGJ+17, ET17, EL14, KB16, KVV16, LSP+15, BHH19]. Computational
[HWCL17, SC20, Li14a, Li14b]. Compute
[But13a]. Computer
[ACM17a, LTKS15, Son16a, Wor16]. computers
[Goo18, Hol18]. Computing
[Bee18, DMH18g, Her17, JWNS19, Kue18, LQYG19, LSH13, TMTB19, Wel18, Fin17b, Her19, HS19b, IFD+19, KGS+19].
concentration [LP18c]. Concept
[HSB17a, HSB18e, Shu17, Sdk+17, AC19]. concepts [BGPW16]. concerned [Far18b]. Concluding [Gev16]. Conclusion
[HSB17b, HSB18f, Mor17g]. Concurrency
[DGHK17, Kad18, MMSK+17, WB17]. Concurrency-Related [WB17]. Concurrent [OR17, RLT17]. Condensed
[JW16a]. Conference [ACM17a, ACM17c, GP17b, Ker12, OF15, Sad13, IKY05, Jue04]. Confidence [MG17]. Confidential
[CZJ+17, Nmt16, RMS17]. Confidentiality
[OR17]. Configurations [RC16].
Countries [Ano18d, OA17, AR15]. Coup [MK15]. Course [JW16a, JW16b].
Covenants [CP17b, MES16]. Cracking [VSM+19]. Crash [JW16a, JW16b, Edw15].
Created [Pav18]. creates [Ole18]. creation [FZC+20, VG17]. Credentials [CDD17].
Credit [Bys19, Kat16]. Crier [ZCC+16]. crime [Far18a, UJ16]. Crimes [KCD17].
Criminal [JKS16, Hol18, Tun18]. Criptovalute [Cap15]. Critical [Mis17, PF18, dCdCM14].
cross-application [AAE19]. Cross-Chain [WCL17]. Crowd [BLNN17b, SVL17].
Crowd-Based [BLNN17b]. CrowdBC [LWY+19]. crowdsensing [KOM+20, YZL+19].
Crowdsourced [Mue18]. Crowdsourcing [LWY+19, FY19]. CRYPTO
[CRS83, Ale18b, CXS+17, Cou14, GCR18, Gom16, Kan18, Ker18a, KN12, Lin15, Mck19, WSN18, BHI+14, Cae15, RSW96].
crypto-currencies [Cae15]. Cryptocurrency [Abr16, Ano16c, Ano17e, Ano18e, Ano18f, Ano18i, BBSU12, BHI+13, Car15, EL14, Eva14, GH05, GKC14, GZ+14, Gri11, Int14, Ker18a, KN12, Lau11b, LCL17, LSH13, MY11, MCE18, Mul14b, Nav17, Pav18, Swa15a, VGJ15, VM15, AF16, BHI+14, Bra15a, BOS15, CXS+17, CRdK16, Dus14, FB17a, Hol15, Ker14, Lee15, Pec16, SI19, San14, San14a, Six17, Son16b, SKG13, TFG17, TF16, Uri17]. Current [Cou16, Six17a].
[AS18, ACW17, ARBK17, ADA17, ACV17, Ban18, BBGPa19, BKSB9, CGLR19, CNSN14, DCK17, DMR18, Drel17, C1, Drel17, Drel17, ETC17, ECD17, EG17, EN1, FH17, Fig19, Hul17, ISM17, JRB+17, KMMW17, Keri12, LSi17, LLI17, LL17c, LST+17, Liu16, Mai18, MJS+14, Misi17, MBC+17, Nar19, NSNL17, RDR17, Sad13, SDT17, SBHD17, SV16, SLY15, Spo17, SVS18, TD17a, TSC18, VMMA18, WvB14, Wör16, XAY17, XAY18, XWL+19, Y1W18, Y1W18, Y1W18, ZCC+16, ABB+19, BHH19, BMS14, BP17b, BCJR15, CLS19a, CSLD17, CMR+16, Far18b, Gir18, GP17b, JZZL17, JO13, Lee15, LML+19, MZA+20, Pal18, RCD+19, Siva17, WWZ20, YC18, ZWGC19, GANAHJ17].
data-based [WWZ+20]. Data-Centric [Hul17]. Data-driven [DMR18]. data-level [CSLD17]. Database
[DHES16, WB17, EHBA+19, NGS+19]. Database-Backed [WB17]. Databases
[AAG17, FYK+17, Moh17]. Datascraper [MKGT16a, MKGT16b]. datastore [RST11]. Daten [Siva17a]. Datenschutz [PB17]. datenschutzrechtliche [BP17b].
Dating [CE12]. David [Lut17]. day [Fir18]. DDoS [JLG+14]. RBL+17, RBS17].
Deanonymisation [BP14].
Deanonymizing [ABE20]. death [Cim19].
Debt [Bhe17c]. Debt-based [Bhe17c].
Decentralisation
[CVM17, EBHBL16]. Decentralized
[BSG+14, But13b, Cou13, CDE+16, DMH18f, DGP17, Eva14, FR16, FY19, FDT17, FF17, GH05, G Kang+14, GM17, HTCW17, HTCW18, KET+17, Kra16b, KMB15, LWY+19, MBC+17b, Mue18, Mul14b, NOT15, Not19, Pas15, RMSK14, SCG+14, SGF+17, S19, SV16, Sub18, Tan19, TS16, Voi11, Zoh17, ZZJ17, Bre17, HHBS18, HSGY20, JZLL17, RKP19, RSJP19, Woo14, XJR+17, ZMH+17, ZMH+18].
Decentralizing [Hal17]. Decentralization [Las17, Moh19].
Decisions
[EEB18, KUEE17, KUEE18, KUE17]. decoded [CM14].
Decomposing [Ros12].
DECOR [Ler14a]. Decoupling [IM16].
DecReg [KON17]. Deep
[BNMH17, GR17, NMH16, UJ16]. Default
[NTK17]. Defense [ZP17b]. Defined
[AK17, SD16a, YPDC20]. Defining [Hir17].
definition [DMR19]. defrauded [Lew15].
Degradation [ABF+16]. Delay
[FOA16, SOA17, FOA17]. Delays
[RFM+18]. Delegatable [DD17].
delegation [AAC+19]. deletion [YCX18].
Deliver [GDTP17]. delivered [Pal18]. delivering [TF16]. Delivery
[GRKC15, ZLT+19]. demand [DB16].
Demo [SZJ17, ZZJ17]. Democracy
[QFLM17, Mea19]. democratic [KH16].
Demonstrating [FF17]. Demystifying
[Ano20, LT16]. Denial
[SGDT19, VTM14, Bac02a, Bee16].
Denial-of-Service
[VTM14]. Dense
[SYK17]. Dependability
[BBGP19]. Depends
[Smo18]. Deploy [Raz19].
Deploying [GBSAS17]. Deployment
[ECHL16, FSW14]. Deposit [BZ17].
Deposits
[ADMI14a, Ano18k, Bee16, YSL17, YTL19]. derivation [Per19].
Derivative [AAB17]. Design
[Ali19, BK14, BLSD17, CLS19a, EGB18, Fot17, Lin15].
MAQ99, SK17, Wör16, NGS+19.

Designated [WHJ17]. Designated-verify [WHJ17]. Designed [Li14a, Li14b].

Designing

[LTMM19, NST+17, Uri17, VGJ15, XLL+19].

Designs [Babad17]. despite [PB17].

Destruction [Cou14]. d’État [MK15].

Detecting [AGGM16]. Detection [Bog17, DH17, Lzc+17, MMT16b, RRM18, SGT19, CEW15, LW16, LTMM19, MMT16a, VD17]. detections [CZ16].

detector [XGS+20]. Determining [KRL17, Sc18]. Deterministic

[DK17, GS15b, WLGL19]. Deterring [KT15]. developed [AR15]. Developer [Ano17b, Nor17b]. developers [Lee13].

Developing

[Ano18f, BBH18, Lim18, FRUS17].

Development [AKP17, AKP18, DSN17, HS6d, Lei16, Bra15a]. Developments [DMH18k].

Devices

[HS16c, LMWL17, ÖY17, Ses18, FMR+19, HYLY19, HCW+18, LL16, LL17a].

dezentrale [Six17e]. Dhab

[ACM17a, ACM17b, ACM17d]. diced [Nik17]. Did [RS14]. Dies [Mck19].

Dietcoin [FMR+19]. Difference [Nis16b].

Differences [Mul14e]. Different [Mer19].

Difficulty [GKL17, Kra15, Kra16a, MCI17j].

Digital [AKP18, ACV17, BBM+18, Cha81, EL14, gev16, GK14, Gni11, KTI15, KKS14, LPSZ18, Mer88, MK15, Mor17h, Nav17, OZ16, Pav18, Pop15, Pop16b, RBB19, Rn18, S1o18, Spr13, S1w16, TS16, Vel16, Ze16, Bar18, BHS93, BGPW16, CJS17, CRDK16, GON17, Goo18, HS91, HS16a, Ker14, KH16, Lec15, Pan96, RBM17, RSJP19, SI19, T1F16, Uri17, VCI15a, VCI15b, AKP17].

digitale [Ker14]. digitaler [RBM17]. Digitalization

[Sch19]. Dilemma [Eya15]. Dilemmas [KKS+17c]. dimension [CLS19b, CLS20].

Dimensions [JB18b, Hal18]. Diplomacy [Ber17].

Directed [RJK+17]. Directions

[DH76, HHHK18, PPMT17, Son16a, HRC19].

Diritto [MS15]. Disambiguating [Dre17e].

Disaster [Pan18]. Discontinuity [TSCT18].

Discourage [MKKS14, MKKS15].

Discovering [Dre17f, EZ17, EZ18, TSCT18].

Discovery [ACW17, MTB19]. Discuss

[FF17]. Discussion

[Ali15, HS17c, HSB18g]. Disincentivize

[ES14a]. Disk [GL00]. Dispute [BT18a].

Disputes [ABL18b]. Disruption [BBBB15].

Disruptive [DT18, FRUS17, GR17].

disruptiver [FRUS17]. Dissecting

[BCCS20]. Distributed

[ALPBT17, AGBK18, AABM17, Bru17, CZI+17, EGB18, ECD017, Eti19, EG17, H16, HLC+17a, Her17, Hul17, JCHR16, KMOD17, KYV19, LDWS17, Luml16, SSL17, LLL17, LSP+15, MGG17, Mei18, MGGR13, NST+17, Poe14, RBB19, RLT17, SD16b, SGD19, Str18, T1D17a, Wat17, Wel18, Wu17, ZWQ+16, BS15, CK16, CM19, Her19, KF19, MKS+19, PLSS17, ZWH18].

Distributing [Dre17g]. Distribution

[Yeo15]. diversification [BOS15]. Divide

[Bral3]. Divisors [DDX17]. DL’17 [Spo17].

DLoc [EC017]. DLT [Lim18].

DLT/Blockchain [Lim18]. DNS [HSGY20].

Do [Pec17a, SIDV14, Kug18]. Docker

[XJR+17]. doctrinal [HA15]. doctrinarias

[HA15]. Document [PRP+20, HS91].

Documentation [Ano17b]. Documenting

[Dre17h]. Does [HS17c, HSB18g, SGF+17, Ste17, Ano17d, Fai17, RE18]. Domain

[JB18a, RBS17]. Dominant [AC17]. Don’t

[JBK+19, MHH+16, Pal18]. doors

[LDZ14]. Doppelganger [KGS+17].

Dormancy [Sm18]. DoS-resistant

[Voi11].

Double [DNY17, KAC12, KAR+15, LZC+17, aNOE17, PSDSANH19, PR16, DB16, YSLH17]. Double-Financing

[aNOE17]. Double-spend [PR16].

Double-Spender [DNY17].

Double-Spending [KAR+15, LZC+17, KAC12, PSDSANH19, YSLH17]. Down

[Son14, Vlg15, Zet13, Sha17]. DPM
Enabling [ABL18b, IK19, Nar19, Ōhn16, XSC+17].

Encrypted [AAG17, DCK17, FYK+17].

Encryption [DDX17, FYK+17, LLW17, Mer88, CLC+19].

End [BMSS17, BMSS19, MBB+15, Roi13, Rot17].

End-to-End [BMSS19, BMSS17].

Endorsement [MBT19].

Energy [BD19, LDWS17, OO19, PW17a, Pop18a, CJA+19, Fai19, JAK19, Kug18, MNB+17, OM14, TKW15].

Energy-Efficient [BD19].

Enforcement [ME17, WBL17].

Enforcing [Zei16].

Engine [LPGBD+19, SSSJ19, WDL+18].

Engineering [Fra14, Nia19, Not19, PPMT17, Sve17, Bar16, CLS19b, CLS20].

Enhance [SOA17].

Enhanced [CC16, LST+17, XJY17].

Enhancing [BBGP19, CP17b, MO15, WA15, Hea13].

enigma [Nis16a].

enormous [Fai17].

Enough [ES14b, GLD+18, ES18].

Entangled [JB18b].

Enterprise [Mor17a, dKW17].

entire [Nic17].

entities [YV17].

Entrepreneur [IM16].

entrepreneurship [NC17a].

entropy [PW17b].

entwicklung [FRSU17].

Environment [LST+17, ABB+19, JAK19, KK17b, LL16, LL17a, Li14a, Li14b, WLL+13].

Environments [Mer19, VFS+19, LTMW19].

EPBC [XCG+17].

EPR [PLSS17].

Equihash [BK17b].

Equity [ZZ16].

Equivocation [RKS15, TD17b].

era [dS17a].

Erratum [Ano18f, ZFY17, ZDL17b].

 erste [SKG12].

Escrow [WLY17].

ESORICS [GANAHJH17].

Essays [Kha19, Rec19].

estimated [Nic17].

Estimating [Bon14a].

estimation [Kat17, YV17].

ETH [Osb18a].

Ethereum [ABB18, ABC17, BCCS20, BKT17, BCM16, Bon16b, BO17, But13b, CCMN17, Dan17b, DMH18g, DMH18m, Fai19, Hir17, JCHSR16, KLM17, LPGBD+19, MB17, NPS+17, Six17g, Woo14, XGS+20, ZWW+17].

EtherQL [IYZ+17].

Ethics [AM15, BKS19, UJ16].

EthIKS [Bon16b].

EU [But19].

Eurasia [ACM17c].

EUROCRYPT [OF15].

Europe [Ker18b].

European [Gim16, LD17].

EV [HZLH19].

Evaluating [AKR+13].

Evaluation [ACW17, DCK17, Doz18, FOA16, IGRS16, Mer19, Sal18].

Evasion [Nar19].

Event [Ler14a, VM15].

Event [Hul17, Tac17].

Event-based [Hul17].

Events [TADS20].

ever [Sir16a].

ever [Cim19, Fai17].

Everyone [GH17].

Everything [Far18a].

Evidence [DVRM16].

Evil [Kru13].

Evolution [FPK17, KBS17, Küm16, Smo18, Tay17, WL15, OC16].

EVOO [But19].

Examining [But19, KCD17, VBC+17, Uni14].

Exchange [CC16, CGLR19, HG15, JMM14, Joh19, MSCH15, McK19, MC13, MCS18, Nar19, RJK+17, Wu19, YSZ+19, Abe18, Cin19, SBL19, Son16b, WHJ17, Ano19a, Cim18a].

Exchanges [DBB+15, DGSW15, Hut17, Son14, WSZN18, K.13].

Exchanging [WvB14].

Exclusive [WREK18].

exclusively [CSG+18].

Executing [SCAA13].

Execution [EMEHR17, GBPDC17, SCAA13, WXR+16, LPGBD+19, SSSJ19].

Executive [WREK18].

Expected [Sid14].

Experience [Riz16].

Experiences [KJGW17].

experiments [Li14a, Li14b].

explaining [BWZ17].

exploited [Fir18].

Exploiting [MMH+16, DMR18].

Exploration [LCL17, SK17, Wey19, BB14].

Exploratory [AH19, BO17, LW16, Nav17].

explorer [KK17b].

Exploring [CXL18, EN19, KSCD16, OOF+17, SK15, WL15, Gom16].

Extended [BLMR14, Hull17].

Extending [BLMR14, FYK+17, WJ16].

extension [Bak09].

External [WBK+17].

Extra [But19].

Extracting [SMZ14, YSZ+19].
Extremism [Lut17].

Fabric [BSV17, MBT19, Suk19, Vuk16, Yew18, BHH19]. Facebook [dS17a].

Facilitate [NH17]. Facilitative [KCD17].

Factor [ML15, ML17]. Factors [KCD17, ZDL17a, ZDL17b]. Facts [EDS15].

FaDe [CGLR19]. Failings [Wey19]. Fair [ADM14a, Ast16, BK14, BC16a, CGLR19, CGJ+17, HWCL17, HLC17c, JMM14, MBC+17b, PS17, Pia16, YSLH17, Bee16, HCW+18, LLZY20, YTL19].

Fair-Exchange [JMM14]. Fairness [CGJ+17, GDT17]. Fall [Son14]. fails [Lee13]. Fambit [HRE17]. Far [KVL19, Goo18]. Farming [PTPR17, PTPR18]. Fast [DW15, KAC12, Lin17, LZC+17, SCAA13, SZ17, SZ13, Uri17, YTL19, VB08].


FBI [Gre13]. FC [BBMS14, BCJR15, CSN14, CMR+16, GP17b, JRB+17, Jue04, Ker12, Sad13].

Fears [HM18]. Feasibility [JCG17, SL18].


Finance [Bhe17d, Edw15, Eya17, HSBI7b, HSBI7a, HSBI7c, HSBI7d, HSBI8a, HSBI8b, HSBI8f, HSBI8e, HSBI8g, HSBI8h, HSBI8i, TBY17].

Financial [Ami16, Bai19, DMH18l, EMEHR17, HRF17, JB17a, JMK17, Ksh20, Nor17c, Rec19, Sch19, TSCT18, And18, K.13, KBBT20, Lee15, Lew15, LMR17, LP18c, Six17d, VX17, BBMS14, BCJR15, CSN14, CMR+16, GP17b, JRB+17, Jue04, Ker12, Sad13].


Fine [RCD+19, LH+18]. Fine-grained [RCD+19, LH+18]. fingerprint [HS19b].


Fishes [ZWW+17]. Fistful [MP+13, MP+16]. fix [Lee13]. FL [Jue04].

flange [Cae15]. flash [MBD+12].

flash-speed [MBD+12]. flaw [Duc13, Fir18].

flaws [FB17a]. flexible [DKJ19]. Flow [BS17a, YK15]. flows [BDP+15].

Fluctuations [EDS15]. Focus [TKW15].


Foreseeable [ATD17]. Forging [Pop16a].

Fork [KLM17, KKS+17c]. forkable [WDL+18]. Forkbase [WDL+18]. Forks [LK17]. Form [Ano18f, BBH18]. Formal BDLF+16, Son16a. formalization [SPZ+20]. Formalized [CSX+17, LN17, NML19].

Formalizing [AKGN18, Wel18]. Fortune [Pop17b].

forward [MAAN19]. Fostering [Sch19].

Found [Kee16, Pop17b, YY+16].

Foundations [DMH18a, Gom16, HSM17].

Founder [MCK19]. Founding [EL14]. Four [LF16]. FowlerNollVo [VF91]. FPGA


[Bhe17d]. Framework [AvM18, Ano18f, BLPB17, BBH18, Cor19, DWC+17, Gou19, HL16, Las17, LFW+19, Mal18, Nar19, àNOE17, PTPR17, PTPR18].
RS17, SK15, Scr18, Ses18, SV19, Tam19, TMTB19, Gim16, IFD+19, JAK19, KBTT20, KOM+20, MZA+20, MRG18, RDDB19, RSJP19, VCS03. Fraud [CZ16, CBWF17, Gof19, HRF17, Kru18, MMT16b, RRLC17, CLS+19c, Kha15, MMT16a, VR17].

fraudulent [CZ16, CBWF17, Gof19, HRF17, Kru18, MMT16b, RRLC17, CLS+19c, Kha15, MMT16a, VR17].

Fraud [CZ16, CBWF17, Gof19, HRF17, Kru18, MMT16b, RRLC17, CLS+19c, Kha15, MMT16a, VR17].
Grounded [Doz18]. Group
[OOF+17, Tum18]. Grouping [NTKS17].
grow [Ker18b]. Growing [JB17b]. grows
[SB13]. Grundlage [RBM17]. Grundlagen
[BP17b]. guarantees [CCMN17, Sir16a].
Guidance [Int14]. Guide
[Sch14a, Wal18, BDP17a, BT18b, Mil15,
Pro13, Pro14, Wal19]. Guidelines [BO17].
gut [Pla13]. Gyges [JKS16].

Hack [McM13, Nak18, WSZN18]. Hacked
[Abe18, DMH18e]. Hacker [Osb18a].
Hackers [WREK18, Boi18, Nic17]. Hacks
[dre14]. Hadoop [Li14a, Li14b]. Hailing
[Shi19]. Handbook
[LMC18, Lee15, MG16, OZ16]. Handbuch
[Ale18b, MG16]. handful [AF16]. Handling
[MLA17]. Hands [PL16]. Hands-on
[PL16]. Handshake [XJY17]. Hard
[But13a, Lar13, Ler13, ML14, Per09, Tro14a,
Tro14b]. hardening [FMR+19]. Hardfork
[MCHM17, MHM17]. Hardware
[BNMH17, NMMH16, SNM17, Tai17, WRB15].
Hash [Bac97, Bac01, Bak09, VFN91].
Hashcash [Bac02b, Bac02a, Bac03, Tro15a].
Hashimoto [Dry14]. Hashing
[Dre17i, Dre17j, Ler13, Tro15a]. HCI [SK15].
headless [TFG17]. Health
[DMH18c, SDT17, Shu19, CLC+19].

Healthcare
[ARBK17, IFD+19, Joh18, Ksh18, RRD17,
YWJ+16, ABB+19, CDS+19, MCLH19].
hearing [Uni14]. Hearings [Dus14].
Heater [Lin15]. heck [Kay17]. heist
[Abe18, Far18a, Hol18]. Heists
[dre14, Gal18]. held [Un14]. Help
[MBC17a]. Heterotopia [MK15]. Hey
[KD16]. Hidden
[EZ17, EZ18, GZH+14, AABE20]. Hiding
[AK14]. Hierarchical [GS15b, WLGL19].
hierarchical-deterministic [WLGL19].
High [CGFH16, DMH18g, DHES16,
MPSP17, SS12, SZ15, TOM17, Vial16,
XLM+17, XZK+17, ZLX+17].

high-availability [ZLX+17].
High-Frequency [Via16].
High-Performance [DMH18g, DHES16].
High-Rate [SZ15]. High-Throughput
[MPSP17, SS12, XLM+17]. Highlights
[Sup16]. Highly
[JFKKX16, Far18a, RST11, Cin19].
Highly-Efficient [JFKKX16].
highway [Gal18]. Hijacking [AZV17]. History
[AMVA17, Dree17d, Hill14, Abe18]. Hit
[Ker18b, Lee13]. hitchhiker [Wal19, Wal18].
hoc [CGFH16, LMH16]. HOL [ABB18].
Hole [bAHRAK17, bAHRAK18]. honest
[FZC+20]. Honey [MXC+16]. hood
Hope [Bue18, Per17]. hopes [Pal18].
hoping [Hol18]. hopping [CK16]. Host
[Ro13]. Hosts [SD16a]. Hours [Cim18b].
House [PTPR17, PTPR18]. Hub
[BKM+17]. huge [Hol18]. Human
[PHD+17, Har17]. Hundred [Uni14].
hybrid [HZLH19]. Hype [Per17].
Hypergraph [RJK+17]. Hyperledger
[BSV17, DMH18j, MBT19, Sui19, Yew18,
BH19]. Hyperpubsub [ZZJ17].

I.R.S. [HM18]. I/O [Dry14]. IBM
[MDN+18]. IC [IK19]. Iceland
[Ano18h, Far18a, Hol18]. Icelandic [Far18a].
ICO [Ito18, Osb18a]. Idea [BP15, Nis16b].
Identification [BCCS20, MYSZ19, PPR+20,
TT19, TOM17, Cha85]. Identifying
[Dree17k]. Identities [ACC+17, Smo18].
Identity [AK17, AB17, AABM17, DP18,
FR16, Hall17, Kue18, LN17, LLW17, NML19].
identity-authentication [NML19].
Identity-Based [LLW17]. IDPS [Ali19].
IEEE [APL15]. if
[Fai17, Far18b, LP18c, Pec17a]. II
[HSB18c, OF15]. III [HSB18d]. IoT
[WLC+20]. Illinois [Nor17a]. im [ABR17].
Images [Via16, XJR+17]. Imaginaries
[KL17]. imagination [Fin17b]. Imaging
[Shu17]. Immediately [Ro13]. Immigrants
Interoperability [CWL17, JB18b]. Interoperable [Lim18]. interplay [KCS’14]. Intersection [JB18b].

Interoperable [Bhe17c]. introduced [Ano17a], Introducing [Dan17b, JB18a].


jurisdictions [Ano14b]. jury [Ano18a]. just [Kay17].

Kademlia [MCD15]. KARMA [VCS03, GH05]. Keep [WM18]. Kernel [WB15]. Kernel-Level [WRB15]. Key [Alz19, Bon16b, Eti19, GS15b, Jue04, Kee16, MSCH15, CSC16, DSPSHJNA18, EBSC15, MBB+15, Mer80, Per09]. Keyless [EN17].


Know [JBK+19, KD16]. Knowledge [CGGN17, Dan17a, GCL16, MGDEK17, MGDEK18]. Kodak [Ano18i, Bue18, Rool18]. KodakCoin [Bue18]. können [KFR18, KFR17]. Korea [Ano18j]. Kralendijk [Ker12]. Kryptoökonomie [SIX17].

Kryptowährungen [Ael18b]. Kubernetes [Yew18]. Kudos [SD16b], kurz [Pla13].

Labeling [NPS+17]. landscape [LSS14].

Language [Cob17, HBJB14, O’C17, Wol18, KF19].

Large [Chr13, ES14a, SIDV14, SZJ17, WLXC17, vdHKZ14, DKJ19, ZWX+19a]. Large-scale [SIDV14, SZJ17, WLXC17, ZWX+19a]. largest [Abe18].


laundering [MBB13b, MBB13a]. Laundry [DBHC17].

law [Abe16b, DW18, Lev17, ED15].

Lawful [WBK+17]. Laws [GP17a, McL13, Mic14].

Layer [Kla19, LZY+17]. Layers [Dre17v].

LD [Spo17]. LD-DL’17 [Spo17]. lead [Hol18]. League [Gei16]. Leakage [GS15b].

Leaks [LL17b, LL17c]. Learn [HSB17b, HSB18f]. Learned [Son16a].

Learning [BMNH17, Bik16, Böh13, Cae15, Ger15].
[Chr13, Bar16]. Marketplaces
[KET+17, LPSZ18, Sub18]. Markets
[KCD17, Not19, CF15, LT17, MNB+17, VX17]. Massive [Ano13b, Tun18].
MasterCoin [Wil13]. Mastering [Ant15].
Mathematica [Wol18]. Matters [And14].
Mature [GLD+18]. maturity [WCX16].
Maximization [SCYP17]. May [Kan18, Bon14b]. Maybe [DL17].
MCS [FY19]. MCS-Chain [FY19]. Mean [Ste17].
Measure [Smi18, Bac02a]. Measurement [Chr13, LZDA16]. Measuring [Vas17].
Mechanising [PS18]. Mechanism [HLC+17a, KK17a, XLM+17, FZC+20, RDDB19, Shi16, SSL+19, WWZ+20].
Mechanisms [JWNS19, JSK+17, MLD19]. Media [CR17, MLM16, MLM15, VD17].
MechiBchain [ARBK17]. Medical [ISM17, Liu16, Shu17]. Meet [Ras13].
Meets [DSW16, LQYG19, NGS+19]. Mehr [Dix17]. Memory [But13a, KAD18, Lar13, VCLK17, DKJ19, Per09, Tro14a, Tro14b, Tro15b].
Memory-Easy [But13a]. Memory-Hard [But13a, Lar13, Per09, Tro14a, Tro14b].
Men [MPJ+13, MPJ+16]. Merchant [Mull14d, Nar19]. Merge [Hea13].
Message-Locked [FYK+17]. Messaging [Hal17, MCD15]. Meta [SV16].
Meta-products [SV16]. Metadata [BP17a, BBP19, GBAS17]. Method [ACW17, KKS14, Kha15, Si16]. Methods [DH17].
Microgrids [BLSD17]. MicroMint [RS96a, RS96b, VSO2]. Micropayment [BDW17, DW15, RM19, RS96b, RS96a].
Micropayments [Pas15, Riv04]. Microsoft [Cim18b, Tun18]. Microstructure [Wu19].
Middleman [MC13]. Might [Hur16]. Miller [Ano16c, SM-16]. Million [Cim18a, Gre13, McK19, Nak18, YWW+18, YWS+18, Cim19, Osb18b]. Millionaires [Ras13, Pop15, Pop16b].
Millions [Ano19a, BBM+18, Seg18]. Mind [Ano14a, MBC+17b]. Minds [GCL16].
Miner [Eya15, Ler14b, SGF+17, WL15, CSLD17, Tun18]. Miners [BBM+18, GCD16, Kan18, FZC+20]. mines [CP17a].
minimal [MAQ99]. Mining [Abr18, BS16, BD15, BD19, Ber18, CTM19, CGN14, D18, DMH18i, Dim17, E14a, ES14b, Hou14a, Hou16, JLG+14, JZS+17, Ker18a, Ker18b, KKT16, KJ17, KJ18, Kwo14, KKS+17b, LJG15, LBS+15, LL17b, LL17c, LSP+15, Mat14, MKKS14, MKKS15, Mul14e, RJK+17, Ros11, SCYP17, SSZ17, SBRR17, VTL17, ZWW+17, ZP17a, ZP17b, ZGR17, BHI+14, CEW15, Dev14, ES18, Goo18, HS19a, Hol18, KDF13, OM14, Ole18, Tro15a, VDK16, Nic17]. Minority [Ort16].
Mirror [BBGP19]. Misbehavior [KAR+15]. misfits [Pop15, Pop16b].
Model [BBGP19, CTM19, FOA16, FYK+17, HG15, Hut14, HP19, LS17, LT17, ML14, OEO16, OEO17, Tami19, AC19, KKK19, MRR+20, NAH15, WCX16, ZW15, ZW17, ZDL17a, ZDL17b]. Model-based [LT17]. Modeling [AMD14b, Bys19, LJ17, CFvdPS15, Suk19].
Modelling [Kab17]. Models [vM18, Kat17, LW16, Liu18, PR16, RBM17].


O [Dry14]. Obama [WM19]. Object [OR17]. Object-Oriented [OR17]. Objects [AKGN18, Kin13]. obsolete [Cha85]. Obstacles [Mei18]. occupies [Nor17c]. Odometer [CBWF17].

Off [ET17, GH05, HBG16, KG17, Kra16b, MKKS15, Gal18, Lec13, MKKS14].

Off-Blockchain [HBG16, KG17].

Off-Chain [Kra16b]. Off-Chaining [ET17].

Off-line [GH05]. öffentlicher [PB17].

Official [Ano18]. Offline [DNSY14, DNY17, WGL19]. offs [SIDV14].


On-Blockchain [HBG16]. once [Sha17].

 Oncology [DXR’17]. One [GCL16, Pav18, Uni14, Nor17a, Tun18].

Onion [GDP’17, Esc18].

Online [Chr13, JKKXX16, Ld17, RRCL17, CZ16].

Only [McK19, LP18c]. Onto [SD16a].

Ontology [RC16, dKW17]. op [PdWWS16].

OP RETURN [BP17a]. Open [ACM17e, BLBS17, HRE17, Lim18, LNZ’16, Tnm17, XWL’19, dCdcM14, Cap12, Hol15, Ks18, MKS’19, Sko19, Cap12].

Open-source [dCdcM14, Cap12].

Open-Source- [Tnm17].


Opinions [GCL16]. opportunità [AF16]. opportunità [San14b].

Opportunities [HSB17a, HSB18e, JB17a, MWV’18, SK17, Van14b, ACA’19, AF16, Ker14, MCLH19, San14b, San14a, ZFY16, ZFY17].


Options [Nia19]. oracles [KGS’19]. orchestration [AC19]. Order [DDX17, Pav18, VC15a, VC15b].

Order-Preserving [DDX17]. Ordering [BSV17]. Orders [YWS’18].


Organized [MDAP16, MAP16, Far18a]. Oriented [GvRS17, OR17, IPSP17, NML19, PPMT17].

 origin [CCMN17]. Origins [SJZG19]. Oslo [GANAHHJ17]. Other [EDS15, Eva14, KJGW17, Pop17a, Ano18a].

Our [Smo18]. Ouroboros [KRDO17].

outbreak [Tun18]. outfit [Nic17]. Outliers [MMT16b].

Outlive [Hur16]. outlook [GL16, ZZ16]. outsourcing [HCW’18].

Overcoming [BLNN17a, GG17, HRF17].

Overlays [CM16, MO15]. Overstock [Sid14].

Overview [Ros12, YMR18, ZFY16, VG17, ZFY17].

Own [Ano18i, PW17a]. Owner [Gre13].

Ownership [Dre17h, Dre17w, HP17].

P2P [ACM15, Ali15, BKP14, Cas12, DPHSJ14, FSW14, HLC’17a, KKM14, Nak08b].

p2pool [Vol11]. P4 [YPDC20].

P4-to-blockchain [YPDC20]. packet [YPDC20]. paid [Ito18]. Pairing [DFKP13].

Pairing-based [DFKP13]. pairs [LT17].

PAMBA [Ler14b]. Paper [AM15, BDLF’16, GvRS17, MCJ17, Sch14b, XJY17, Ano17a, Nak08b, Sad13].

Papers [BBMS14, CSN14, JRB’17, Ker12, BCJR15, CMR’16, GP17b, Jue04]. Paradigm [Mor17c]. Parallel [LH13, CSLD17].
parliament [Lam89], parser [YPDC20]. Parsing [RDDL17], Part [OF15, Lam89]. part-time [Lam89]. partially [WZQ+17]. Participants [ACV17], participation [LP18c], Participatory [Las17], Parties [FWB15], Partition [KLM17], Partnering [Sch14a], Party [ADMX1a, FYK+17, HLC17c, ZGH+15, ABL18b, Lin17]. Password [IK17, JKKX16, McK19]. Password-Protected [JKKX16]. Path [LCL17, Mei18], Pattern [RJK+17, TOM17, HLC+17b], Patterns [EZ17, EZ18, MYSZ19, NML19], PAXOS [DLL00, DLL97, GL00, HMS17, Lam01, MBD+12, MPSP17, PLSS17, RST11, Ros03, SS12, SS13, VA15, VB08], PaxosStore [ZLX+17]. Pay [Ede14, HSB17d, HSB18h, ZGR17, BDE+13], PayWord [AH12, RS96a, RS96b]. PCS [KLR+17b]. Pedigree [NC17b], Peer [AnoI7a, CVM17, CS15, GH05, KN12, NAH16, Rin18, SOA17, SZJ17, FOA17, Nak08a, NAH15, TF16, VCS03]. Peer-to-Peer [AnoI7a, KN12, NAH16, SOA17, CS15, GH05, SOJ17, FOA17, Nak08a, NAH15, TF16, VCS03], Peers [Dre17g], Pegged [IK19], Penalizing [RKS15], Penalties [KB16, KVV16]. People [BSB16, Ksh20], Peppercoin [Riv04], Perceptions [GCL16], Perfection [Ger16], Performance [ABF+16, Cor19, DMH18g, Gao17, GKW+16, Mah18, SCAA13, Suk19, XZK+17, Dev14, DHES16, KAK20, Li14a, Li14b, Sal18], perhaps [Osbl8b], Perils [ACM15, Ali15], Perish [ZP17b], Permacoin [MJS+14], Permeability [JB18b], permission [AAC+19], Permissioned [BMSS19, EN17, HS16c, HP19, Moh19, Suk19, Vuk17, ZZJ17, AAE19, HSGY20], permissionless [LLZY20]. Personal [EN19, Gir18, LN17], personnel [CLS19a], perspectivas [HA15], Perspective [FSW14, Kiin16, LD17, Mor17f, Mor17g, Sir16b, Sve17, CZ16, CGR18, Her19, KFR17], Perspectives [BMC+15, Dus14, HA15], pervasive [CJW17], Petersburg [ACM17c], Petro [Osbl8b], Petroleum [Nia19], PGP [WA15], phenomenal [GC08], phishing [Ano18], Pal18, physical [Sk019], Picture [Dre17q], Pieces [Dre17c], pilfered [Nic17], Pinocchio [DFKP13], Pipelining [SS12, SS13], Pirate [RS14], PKI [AB17, JLLX+19, KKM19, TADS20], plan [Nor17c], Planning [Dre17m], Plans [Ano17e], Planning [Ab17, JLX+19], KKM19, TADS20, plan [Nor17c], Planning [Dre17m], Plans [Ano17e], Plastic [AM15], Platform [ARBK17, BSV17, BO17, But13b, JCHSR16, KMOD17, Sh19, SV16, SVL17, WDSL17, ABB+19, HYLY19, HS19b, KGS+19, LXL+19, Nor17a, Osbl8a, Wij16], Platforms [Eva14, Mah18, Raj18], PlaTIBART [WDSL17], Platoon [AS18], Play [KMB15], plunges [K.13], PoET [Cor19], Point [ECHL16], points [Far18a], Poker [KMB15], police [Ano18h, Far18a, Hol18], Policy [Rec19], policymakers [BC16b], Politics [Bel18, Lut17, Bra15a], Poly1305 [GADO17], Polynomial [CLS+19c], Polynomial-based [CLS+19c], Ponzi [BCCS20, Lew15], Pool [SCYP17, SBBR17, Vo11], Pooled [LSP+15, Ros11], Pooling [SGF+17], Pools [BS16, ES14a, JLG+14, KKS+17b, LJJG15, LBS+15, VTL17, ZWW+17, ZGR17, CK16, HS19a], poorer [Ano13b], Popularity [VM15], Portfolio [BOS15], PoRX

Pound [Hil14]. Power [Bon14a, DVRM16, LSP+15, Cae15, Gon17, Hol18, Ole18, ÖY17, PW17a]. Powered [QFLM17]. powerful [Hol18]. Powering [AMLH15]. Practical [CDD17, KFN+17, Ksh20, RMSK14, THF17, vS02, ZLX+17].


Preemption [RRCL17]. Preface [Ano19c, LPW17b]. Preferences [NTKS17]. Prescribed [ZP17a]. Presence [GCR16, KDF13]. Preservation [MJS+14, HRC19]. Preserving [ARBK17, ACV17, DCK17, DDX17, KLR+17a, KLR+17b, KMMW17, KUEE17, KUEE18, LS17, LL17b, LL17c, OEO16, OEO17, SVL17, WQHX17, DBB+15, JXL+19, KUE17, MZA+20, YZL+19, ZLT+19].


Privacy [ACM17d, ARBK17, ABB+19, ADA17, AKR+13, ACV17, Ban18, CBWF17, CVM17, DBB+15, DCK17, EN19, GANAHJ17, GÇKG14, Hal17, HRC19, HHIK18, HJPS16, JXL+19, KLR+17a, KLR+17b, KC18, KMMW17, Kat16, KUE17, KUEE17, KUEE18, KJGW17, LDWS17, LST+17, MMSK+17, MO15, NTKS17, OEO16, OEO17, PS16, RMS17, SDTI17, SVL17, SSI7b, WBK+17, XSC+17, YWJ+16, XZL19, A+13, FHZ+19, Hea13, LL17b, LL17c, MZA+20, MRR+20, Pec16, WQHX17, WLL+13, YZL+19, ZLT+19, PB17].


Privacy-Preserving [DCK17, KLR+17a, KLR+17b, KMMW17, KUEE17, KUEE18, OEO16, OEO17, DBB+15, JXL+19, KUE17, MZA+20, YZL+19, ZLT+19]. Private [DWC+17, ISMI17, LSFK17, BHH19, DSHJ18, Ler14b]. Privately [ZC16].


Proceedings [ACM17c, CRS83, OF15, ACM17a, ACM17b, ACM17d, GANAHJ17, IKY05]. Process [CW17, Doz18, MVW+18, VCLK17, WXR+16, FMR+19, KFR17, KK17b, LPGBD+19, SSSJ19, Wey19]. Processes [GBPDW17, KL17]. Processing [DN93, HV20, Hall17, PP16, SZ15, QNM+19, SZ13].

Processor [BH15, Sou13, BHI+14, WLL+13]. Product [Kri19, LD17, LX17, KFR17, XLL+19]. production [Gon17]. products [SV16].

Produkt [KFR17, KFR18]. Produkt-Sicht [KFR17, KFR18]. Professional [BT18a].


Programming [Cob17]. Programs [TOM17]. progress [ÖY17]. Project [DMH18].

Projects [BO17, OOF+17].
Promise [Fot17]. Promises [Ron18].
Promising [HRE17]. Promoting [ALM19].
promptly [Far18b]. Proof
[Abr16, Ast16, Bac03, BLP17, BBH+13, BLMR14, BK17b, Coo08, DFKP13, FZC+20, GKW+16, Kam17, KN12, Lar13, LABK17, MHWK16, Poe14, SLY15, SDK+17, Tro15a, Voi11, Vuk16, AC19, Dry14, HYLY19, KRDO17, Kin13, Shi16, Tro14a, Tro14b, Tro15b, WIJ17, ZLT+19, Cor19, LC04].
Proof-of-negotiation [FZC+20].
Proof-of-Stake
[BLP17, KN12, LABK17, KRDO17].
Proof-of-Work [Bac03, BBH+13, BK17b, Coo08, Lar13, SLY15, Tro15a, Vuk16, Kin13, Shi16, Tro14a, Tro14b, Tro15b, LC04].
Proofs [DBB+15, SBR16]. Propagation
[FOA16, OAB+17, SOA17, DW13, FOA17].
Properties [Gar17, YK15, DMR18].
Property [Int14, Zei16]. proportion
[YV17]. Proposal [GP17a, SI16, HC12].
Proposals [Bra13, EBHBL16, ALM1S16].
Prospect [SCY17]. Prospects
[Hil14, HRC19]. Protect
[ABL+18a, JKKX16, RS14]. Protected
[JKKX16]. Protecting
[Dre17k, Dre17n, WLL+13]. protection
[BP17b, FH19, HWDD17, WWZ+20].
Protocol [BLP17, Böhm13, Coo08, GKL17, HLC17c, KKS14, LN17, Ler14b, LLW17, LNZ+16, ML15, MSH17, MHWK16, Mue18, OAB+17, PSS17, SYB14, SLY17, WCL17, ZP17a, BB15, GKL15, Hea13, KRDO17, Ler14a, LLZY20, CFvdPS15, ML17, NML19, VG17, ZW15].
Protocols
[BK14, LABK17, Luu17, Mer80, MXC+16, KKS+17a, PLS17, P’16, ZWH18].
Provable [SDT17]. Provable
[Pia16, KRDO17]. ProvChain [LST+17].
Provenance
[AS18, LST+17, NSNF17, PK19, RCD+19].
Provers [Hir17]. proves [LC04]. provider
[Gir18]. Providing [LDWS17].
[DBB+15, GCKG14]. Proximity [SOA17].
Prozess [KFR17, KFR18]. Prozess-
[KFR17, KFR18]. Pseudo [MY11].
Pseudo-anonymous [MY11]. Pseudonym
[FWB15]. Pseudonymization
[FWB15, KMMW17]. Pseudonymous
[FF17]. Pseudonyms [Cha81]. PTAS
Public [Alz19, CGJ+17, Eva14, GP17a, HR17, JWN19, Liu19, Mai18, Muf16, XCG+17, XSC+17, vdHK14, AR15, Mer80, PB17]. Public-Ledger [Eva14].
Publication [ALP15]. Publicly
[Bac02b, YCX18]. Publish [ZP17b, ZZJ17].
Publish/Subscribe [ZZJ17]. Puerto
[BCJR15, Nar19]. PUF [IK19]. pungo
[AF16]. Punishes [YWW+18]. Purposes
[Int14]. Push [SD16a]. Puzzles
[BC16a, ML14, MKKS14, MKKS15, RRCL17, RSW96]. PVORM [CZJ+17].
Qatar [Ano18]. QoS [RDDB19].
QoS-aware [RDDB19]. quality [BR17].
quantification [Dev14]. Quantitative
[Hut17, RS13]. Quantum
[ABL+18a, Bee18, BD19].
Quantum-Enabled [BD19]. Query
[LZY+17, XZK+17, QNM+19]. Quest
[Vuk16]. Questions [Pav18, BP17b]. Queue
[ZWW+17]. Queue-Based [ZWW+17].
Queueing [KK17a, RFM+18]. Quick
[LSO+15]. Quorum [Mer19].
R [Li14a, Li14b]. R-Hadoop [Li14a, Li14b].
Race [Mat14, Pec13]. Radiation [DXR+17].
Raises [Pav18, Osb18b]. RAM [KPK17].
Rampenlicht [ABR17]. random
[Duc13, FZC+20]. random-honest
[FZC+20]. randomness [LB18, WYZ+20].
Ransom [BBM+18]. ransoms [LZDA16].
ransomware [CGR18, UJ16]. Raps
[YWS+18]. Rare [TADS20]. Rate
[JKS16, MPSP17, NMt16, SALY17].

RingCT [SALY17]. Ringing [BW17].

Ripple [SYB14, Ale18b]. rischi [AF16].

Rise [Bec18, Son14, FRF+19, Gei16]. Rises [Vig15]. Risiken [Ker14, San14a]. Rising [Sid14, Pro13, Pro14].

Risk [Bys19, Kab17, MC13, MBB14, SIDV14, YWJ+16, Gof19, KBS17, NML19, San14b].

risk-oriented [NML19]. Risk-rewards [SIDV14]. Risks [AAG17, Mai18, MH+16, MCS18, Peo13, AF16, Ker14, San14a, Uni14].

risques [San14b]. RM [Wu19]. Road [BABD17, Frsu17, PdWWS16, Chr13, Gre13, Zet13].


robust [MMT16a]. Roger [MCHM17, MHN17]. role [Bla18, Bra15a].


Router [Esc18, Wol18]. Routing [AZV17, EKK+17, AC19].

Rubbish [Sha17].

Rule [Cou14, DW18, Kor17a, VB08]. Rules [Int14, Ber13]. Run [LJG15]. Running [BCM16].

Rush [BBM14]. SAMPKI [AAG17, CLC17].

Russia [ACM17a].

s [Rou18, Sup16, Che18]. Safe [FDT17].

Safeguarding [NML19]. Safer [Cob17].


SAMR [Ale18a]. San [BJC15].

Sanctions [Ano18d]. Sanka [CRS83]. Sarkar [BB15]. Satoshi [Sha17].

Satterthwaite [Ano18g]. saved [Bar18].

Savings [CPM17]. Sawtooth [Cor19]. say [Far18a, G17].

Says [Ano17e, Gre13, MKC9, Far18b, Nic17, Sha17].

Scalability [Gen17, Goo17, HLJPS16, Kar16, PS16, vdHEM+17].

Scalable [BABD17, BW17, DW15, LF5K17, Vuk16, ZZL+19, RST11].

Scale [Luul17, Riz16, DKJ19, Far18a, SIDV14, SZJ17, WLXC17, ZWX+19a].

Scaling [CE+16, Kuz19b, Zha19, Kuz19a].

scam [Goo18]. Scams [VM15, dre14]. Scan [AGM16]. scenario [HNL19].

Scenarios [BBH+13]. scheduling [HZL19]. Scheme [CGF16, CGLR19, JLX+19, KLR+17a, KLR+17b, KF+17, Wey19, ES16, FSY+19, GGK+14, WLC+20, YCX18, ZZL+19].

Schemes [Ano12, DP18, GCD16, KT15, RS96b, BCCS20, Kew15, RS96a]. Schnorr [MCSW19].

School [KBM+17]. Science [BB17, DMH18d, LH17, LMC18, Wat17].

sciences [CDS+19]. Score [KVL19].

Scoring [BB14]. SCPKI [AB17].

scrambled [Lee13]. Scrapes [Pop17a].

Scratch [MKKS14, MKKS15]. Scratch-Off [MKKS15, MKKS14].

Scrypt [But13a].

SDN [CJA+19, JAK19]. SDN-enabled [CJA+19, JAK19].

Search [KLL+15, MLM16, MLM15]. Searchable [AAG17, CLC+19].

Seasonality [HS15].

second [Uni14]. Secret [GP17a, JKLX16].

Sector [HUF17].

Secure [Alz19, ADMM14, ADMM16, BDW14, BKT17, DNY17, EL14, FMR+16, FHS+17, FYK+17, H97, Hal17, HSL16, KFN+17, KMOD17, KB16, KVV16, LNZ+16, Lnu17, PTPR17, PTPR18, Shi19, SL18, SZ15, SDK+17, Tac17, WLY17, WZQ+17, ZGH+15, ZMH+17, ZMH+18, BHH19].

CJA+19, CM19, JAK19, KAK20, KRDO17, LL16, LL17a, LHH+18, Lin17, MZA+20, MA99, RDBB19, RCD+19, U171, VCS03, WLG19, Woo14, YPDC20, ZWX+19a, ZWX+19b, Ale18a, AABM17, CDD17].

Secured [LN17, Gir18].

Securing [Boi18, GGG+14, J18, LABK17, MKS+19, D17b].

Securisation [HSB18c, HSB18a].

Security [ACM17a, ACM17d, A+13, BB15, Bee18, Bra15b, CC16, Sha85, CSN14].

GGN16, Ger16, GK+16, GCR16, GCR18, bAHRAK17, bAHRAK18, HUt17, JRB+17, Kar16, K16, K16, K19, KJGW17, LDWS17, LKL+14, LDH17, Mor17, Pan18, Sad13, SDF17, Sch98, Ses18, SIDV14, Son16a, Sve17, TSL+17, XWW17, ZXL19, dCdCM14, DCD17].
BBMS14, BCJR15, CMR†+16, DSM†+17, FB17a, GP17b, IKY05, JO13, KA16, KBS17, KS18, MRR†+20, NML19, RKP19, SBL19, Sal18, SSL†+19, Sir16b, Tun18.

Security-critical [dCdCM14], Seeing [Bog17, Dre17q, Dre17r], seek [Far18b]. Sees [Sid14]. Seized [Gre13], seizures [Ano13b]. Selected [BBMS14, CSN14, JRB†+17, Ker12, Sad13, Ano14b, BCJR15, CMR†+16, GP17b].

Selection [RLT17, FZC†+20, LLZY20]. Self [Cou14, LMH16, MDAP16, MAP16, Nis16b, Pia16]. Self-Contained [Pia16].


Service [BSV17, GvRS17, KET†+17, SS17a, SYK17, SGD19, VTM14, Yew18, ZZJ17, AABE20, Bac02a, Gir18, JAK19, LXL†+19, MBT19, MAQ99, Bee16]. Service-Oriented [GvRS17]. Services [CGGN17, HRF17, JB17a, Mul14d, Sch19, dBHC17, Bar16, IFD†+19, SYZ16]. session [Uni14]. Set [OAB†+17]. Sets [AC17].

Setting [NTKS17]. Settings [NTKS17]. Seven [Cou16]. SHA1 [Ste17]. SHA256 [CGN14]. Sharding [GvRS17, LNZ†+16]. Share [KKS†+17b]. Shared [ALPBT17, CWL17, Lin19, EHBA†+19, MBD+12].

Shares [ZGR17]. Sharing [BCM16, CGLR19, FHS†+17, HWCL17, JKKX16, LSM17, SBHD17, Shu19, XSC†+17, Zam19, CLC†+19, MZA†+20, SSL†+19, SYZ16, VCS03]. Sharks [ZWW†+17]. Shipping [JB18a, JB18b]. Shopping [LD17]. Short [BDLF†+16, GvRS17, MCJ17, XJY17, PLA13]. Should [Chu15, McM13]. Shows [McM13].

Shuts [Son14]. Sicht [KFR17, KFR18]. Side [ABF†+16, AGGM16, BBM†+18, KJGW17, Ano16a]. Sidestep [Ano18d].

Signals [RRM18, GS15a]. Signature [EN17, KFN†+17, Mer88, SLY17, ZGGT16, GGK†+14, LTMW19]. signature-based [LTMW19]. Signatures [Cha83, GGN16, MPSW19, WZQ†+17].

Signed [HBG16]. significance [CGR18]. Signing [THF17, Lin17]. Silicon [Tay13].

Silk [Chr13, Gre13, Zet13]. Silver [MeG18]. Simple [CG16, MPSW19, RAH†+15, RS96a, Lam01, RS96a]. Simplicity [O‘C17].

Simulating [CCMN17]. Simulation [AvM18, Gos17, MLD19, ZWH18, CSLD17, LW16, NAH15]. Simulations [SZJ17].

sincerely [Gal18]. Singing [HLC17c]. Single [IK17]. Sins [Cou16]. Sites [GDP†+17]. Size [Dim19, Ano18c, GKI17].

Sketching [Vel16]. Sliema [JRB†+17]. SmaCC [RDDL17]. Smart [ACW17, AB17, ABBS18, ABC17, BNMM17, BDLF†+16, Blo18, BS17b, BS18, BCM16, But13b, DGHK17, Gao17, GLD†+18, IPSP17, IGRS16, JKS16, Kec16, KUEE17, KUEE18, Kun16, LCO†+16, Mis17, Mot17j, NMH16, Ohn16, PTP17, PTP18, PP16, Pia16, RBL†+17, SW17, Swa16, Tam19, VTL17, XJY17, YW18, ZCC†+16, ACA†+19, ALP15, Gia15, KGS†+19, Lev17, LML†+19, MZA†+20, MNB†+17, SPZ†+20, SYZ16, WM19, XGS†+20].

Smarter [LCO†+16]. Smartphone [FMR†+16]. Smartpool [Kad18].


snack [BDE†+13]. sniffer [Cas12]. Soar [McL13]. Sociable [HBJ14]. Social [CR17, GS15a, HBJ14, KH16, MLM16, OOF†+17, RC16, ROH16, Smo18, A†+13, LMC18, Lev17, LD17]. Socialism [HW16].
Socio-technical [EBHBL16].
Society [ACM17c, ATD17]. Socio [EBHBL16]. Socio-technical [EBHBL16].
sofa [Sha17]. Sofia [OF15]. Software [AK17, FS16, HS16d, Lut17, PMT17, SD16a, SDK+17, dCdCM14, Aro12, YPDC20, ZLT+19]. Software-Defined [SD16a]. SoK [ABC17, BMC+15]. solar [PW17a]. Solidity [RDDL17, Dan17b].
Solids [CZJ+17]. Solution [ABL18b, Coe08, HRE17, Kuz19b, PL16, VDG19, Wey19, XWW17, Kuz19a, MDN18]. Solution-Verification [Coe08]. Solutions [Ano19c, But19, bAHRAK17, bAHRAK18, HJPS16, PS16, KS18]. solve [Pec17a].
Solvency [DBB+15]. Solving [KJ17, KJ18, Six17]. Some [Ber13, CG16, Sha17]. someone [Ito18].
Source [Cap12, TNM17, Hol15, dCdCM14].
specific [LCL17]. Sovereignty [Roi18].
special [ZFY16, ZFY17]. Specializing [MKG16b]. spatio-temporal [QNMM+19].
specifications [Cra17]. Speculative [CF15, Bla18]. spoliators [Ito18]. Speed [CSC16, MBD+12]. spend [PR16]. Spender [DNY17]. Spending [Dre17a, KAR+15].
spatio-temporal [QNMM+19].
splines [MYSZ19]. Splitting [LSP+15, KKS17+14]. Sporny [Spo17].
spotlight [ABR17]. spurs [Far18a]. Square [EDS15]. St [ACM17c]. Stable [Men19, SI19]. Stablecoins [Ano20]. Stage [KD16]. staging [Bit09]. Stake [BLP17, BLMR14, KN12, LABK17, Poe14, KRDO17].
stamp [HS91]. stamping [BHS93].
Standards [HV20, Lim18]. startup [Far18b]. scratch [Hol18]. State [Nar19, Sup16, WRB15, Sir16b]. Stateless [RRCL17].
still [Hol18, Pal18]. stealing [LSS14]. steals [Bar18]. steam [Gon17]. Steven [Ano16c, SM-16]. Stick [KLM17]. still [Ano18a]. stock [Son16b]. Stolen [Cim18a, Ro13, Son13, WREK18, HDM+14, Osb18a].
stop [LP18c]. Stops [Cim18b]. Storage [RBB19, SBHD17, SV16, XAZY17, XAZY18, YW18, WDL+18, YCX18, ZLX+17]. Store [Dre17g, Dre17a, Dre17y, MHH+16, McM13].
Storing [Dre17t].
Street [Ksh17a, Ksh17b]. Stress [BHMW16, Men19]. Stressing [BHMW16].
Strict [Ler13]. Strong [DSW16, Sir16a].
Stronger [Per09]. Structure [LMAL17, Mor17c, OKH13, CLS+19, KCS+14].
Structured [SS17a, KMMW17].
Structures [Ban18]. Studies [KPK17].
Study [AH19, BO17, Doz18, Hut17, ISM17, JL17, KAR+15]. Lux17, MB15, WLXC17, YNS16, Yew18, YW18, Bar16, CSLD17, DSM+17, FRF+19, Son16b, UJ16, XLL+19].
Stylized [EDS15]. Sub [Zha19]. Subchains [BLP17, Riz16]. Subscribe [ZZJ17].
Success [KVL19, MCHM17, MMH17].
Succinct [DFKP13]. Sukuk [AIM19].
Summarizing [Dre17u]. Summer [HMS17].
Super [LCL17]. Super-sovereign [LCL17]. supervised [YV17]. Supervision [Nar19, CJW17].
Supply [HSB17b, HSB17a, HSB17c, HSB17d, HSB18a, HSB18b, HSB18f, HSB18e, HSB18g, HSB18i, Kri19, Nia19, RKT19, Wu17, XRS+19, Álv18, DB16, NNGV19].
Support [HRE17, Las17, ME17, Nar19, OJ17, WLL+13]. Supporting [BHH19, CSX+17, XLM+17].
Surface [ZWW+17]. surge [Hol18]. surrounding [FB17a]. Surveillance [Raz19]. Survey [Ami16, ABC17, TS16, FHZ+19].
SURVIVOR [JAK19]. Suspected
sustain [Fai17, KH16]. Sustain [Vra17, LMC18]. Sustainable [AKP17, AKP18, MNB17]. Swarm [Raz19]. Swimming [ZWW17]. Swindle [Ito18]. SWOT [MM17]. SXSW [Vig15]. Sybil [BOLL14, FWB15, FF17]. Sybil-Resistant [BOLL14, FWB15, FF17]. symbiotic [Sko19]. synchronization [FSY19]. Syndicate [HM19]. Syntax [LS17]. System [AB17, Alz19, Ano17a, ACC17, BK17c, CBWF17, CXS17, DFKP13, Eti19, HWCL17, JMK17, JZLL17, LZY17, Liu16, LSH13, MY11, Mor17e, PPR20, RH11, RH13, Sch98, SD16b, SLY15, TADS20, Van14b, WLSZ17, XAZY17, XAZY8, YW18, BMMSS17, CJ19, CJW17, CLS19a, DSN17, FHZ19, Gal18, HHB18, JZLL17, KAK20, LW16, LHH18, Nak08a, Six17j, Tro41a, Tro41b, Wij16, YZL19, ZWX19, ZWX19a, ZWX19b]. Systematic [OO19]. SystemC [CSLD17]. Systems [AvM18, Bai19, BART17, GK14, GCD16, Gou19, HTCW17, HTCW18, IG18, LDWS17, LX17, Mai18, MCJ17, Mor17a, Mor17i, OR17, Ros11, SS17a, Shu17, Swe16, WLXC17, Yew18, Cha85, DMR19, GC08, HRC19, Ker18b, Kral15, Kra16a, RCD19, Six17j, Sko19, Six17i, Six17j].


[DMH18, Nav17]. Technologie [Ale18b, DF17b, DF17a, HP17, HP18, KFR17, KFR18, TNM17, BP17b]. Technologien [GR17]. Technologies [ATD17, BT18a, CR16, EGB18, GBSAS17, Gen17, Gsh20, PP16, ROH16, SJZG19, TT19, YNS16, AR15, BLMQ19, NBF16, Ano16c, SM16]. Technology [AKP17, AKP18, ACW17, AH19, AM19, Ano19c, BART17, Ber17, BK17a, BK18, BCS15, But19, CPM17, Cus14b, Esc18, Eya17, EN19, Foli17, Fug19, GANAHH17, GLD18, Ger16, HSB17c, HSB18d, HSB18g, HSB18i, HTCW17, HTCW18, Hut17, JB17a, JB18a, Joh18, KSCD16, Koe17, KD16, KY19, LSM17, MGDEK17, MGDEK18, Nia19, aNOE17, OOF17, Oln16, OJ17, OECD16, OECD17, RC16, RT19, SPJ17, SK15, Sch19, SS17a, Smo18, Swe16, TBY17, VFS19, Wey19, YMR18, Ale18b, BR17, BP17b, CZ16, CXLC18, DF17b, Gir18, HP17, KFR17, MGM17, Pec17a, Pil16, Raj18, RKY18, SSL19, SK18, SYZ16, TT16, TTC16, Wat17, ZW17, ZZ16].

Telegraph [Fri18]. telematico [MS15]. Telematics [ATD17, BT18a, CR16, EGB17, GBSAS17, Gen17, Ksh20, PP16, ROH16, SJZG19, TT19, YNS16, AR15, BLMQ19, NBF16, Ano16c, SM16]. Technology [AKP17, AKP18, ACW17, AH19, AM19, Ano19c, BART17, Ber17, BK17a, BK18, BCS15, But19, CPM17, Cus14b, Esc18, Eya17, EN19, Foli17, Fug19, GANAHH17, GLD18, Ger16, HSB17c, HSB18d, HSB18g, HSB18i, HTCW17, HTCW18, Hut17, JB17a, JB18a, Joh18, KSCD16, Koe17, KD16, KY19, LSM17, MGDEK17, MGDEK18, Nia19, aNOE17, OOF17, Oln16, OJ17, OECD16, OECD17, RC16, RT19, SPJ17, SK15, Sch19, SS17a, Smo18, Swe16, TBY17, VFS19, Wey19, YMR18, Ale18b, BR17, BP17b, CZ16, CXLC18, DF17b, Gir18, HP17, KFR17, MGM17, Pec17a, Pil16, Raj18, RKY18, SSL19, SK18, SYZ16, TT16, TTC16, Wat17, ZW17, ZZ16].
True [Mez19]. Trump [Men19, WM19]. Trust [ACM17d, FB17b, HHBS18, KGS+19, LSM17, SK15, SK17, Smo18, Tum19, BDP17b, Cra17, MAQ99, P’16, PdWWS16, XJR+17, DGP17]. Trusted [FWB15, MBC+17b]. Trustful [Chi18]. Trustless [KET+17, Kra16b, KGS+19, MBF+20]. Trustworthy [XWW17, FY19, HSGY20, ZWGC19]. TrustZone [GMS17]. TrustZone-backed [GMS17].

Trustworthy [FWB15, MBC+17b]. Trustful [Chi18]. Trustless [KET+17, Kra16b, KGS+19, MBF+20]. Trustworthy [XWW17, FY19, HSGY20, ZWGC19]. TrustZone [GMS17]. TrustZone-backed [GMS17].

Trustworthy [FWB15, MBC+17b]. Trustful [Chi18]. Trustless [KET+17, Kra16b, KGS+19, MBF+20]. Trustworthy [XWW17, FY19, HSGY20, ZWGC19]. TrustZone [GMS17]. TrustZone-backed [GMS17].

Try [Nor17a]. Trying [WREK18, Pop15, Pop16b]. Tuning [SS12].

Turkey [Ano18l]. Turnover [Smi18].

Tutorial [JW16b, Moh17, NHM16]. TV [Ro13]. Tweetchain [BLNN17b]. Twice [Dre17s]. Twins [Pop17b, Gei16]. Twitter [HBJB14].

Two [ADM14a, Gal18, GCL16, Kha19, ML15, ML17, RS96a, RS96b, Via16, Lin17, dS17a]. Two-Factor [ML15, ML17]. Two-Party [ADM14a, Lin17].


Updates [BFS17, BFS18, SDK+17, ZLT+19]. Upheaval [Gev16]. Urban [JMK17]. Urgent [Ano18k]. USA [IKY05, Jue04].

Usability [KRL17, EBS15]. Usage [KSCD16]. USD [HG15]. Use [BSB16, BK14, But19, FRSU17, Hut17, IM16, KCD17, Koe17, KB14, KMB15, LSO+15, LD17, Nar19, VBC+17, WBK+17, Zam19, BLMQ19, Fal19, FNP17, KFR17, Kug18, Raj18, DF17b, SG19]. used [DSN17, LP18c]. useless [Ano18a]. User [AKR+13, ACC+17, BBBBB15, CR17, Dre17k, GZH+14, KJGW17, NTKS17, Riz16, SVL17].

User-Centric [ACC+17]. Users [Cim18b, DS15, GCL16, GDTP17, HBJB14, JMM14, MMR16, Nak18, RRM18, SK17, Son18, XCG+17, AABE20, Ano13b, Cin19, DMR17a, DMR18, Far18b, MBB+15, Pal18, Seg18]. Uses [BB14]. Ushare [CR17].

Using [AS18, AK17, AIM19, Ale18a, Alz19, Ano19b, AC17, AGGM16, Ban18, BT18a, BD19, Bon16b, CQLL18, DH17, Dre17x, Dre17y, DDX17, GG17, HS16c, Hut17, KPK17, KMMW17, KRL17, KT15, KKM14, LDWS17, LLW17, LSM17, Lin16, Mis17, Moh19, MGDEK17, MGDEK18, sNEOE17, Oh16, Ort16, OAB+17, PK19, RST11, RRM18, Rin18, RDDL17, SD16a, SYK17, Shu17, Shu19, SCAA13, SL17, SDK+17, VM15, WRB15, WXR+16, WA15, YNS16, YK15, ZW17, ZC16, ZZJ17, dKW17, AMLH18, Bee16, Ber13, Cae15, CJW17, Che18, CLS19b, CLS20, CS15, Gir18, HZL19, McC18, RDBD19, SI16, Son16b, WHJ17, YV17].

usury [TF16].

UTAUT
v0.0.2 [Cas12]. Validation [TADS20, VG17]. Validity [ZP17a].

valuable [CSG+18]. Valuation [Ber18, Nia19].

Vehicle


Verifiable [Bla18]. Versatile [GKL17]. Variations [SJZG19].

Wearable [BCJR15]. Weaver [DHES16, McG18].

References

Altshuler:2013:SPS

AlJawaheri:2020:DTH

Azouvi:2017:WSI
Sarah Azouvi, Mustafa Al-Bassam, and Sarah Meiklejohn. Who am i? Secure identity registration on distributed ledgers. In Data Privacy Management, Cryptocurrencies and Blockchain


REFERENCES

Amani:2018:TVE


Atzei:2017:SAE


Abel:2018:HCE


Allan:2016:ASC


Aggarwal:2018:QAB


Aniello:2018:BBS

REFERENCES


REFERENCES


Augot:2017:UCS


Ali:2015:BPUa


York, NY 10036, USA, 2016. ISBN 1-4503-4769-X.

[Aszalos:2012:PAP]


[Al-Housni:2019:ESB]


[Androulaki:2014:HTA]


[Abbasi:2017:VVI]


[Anta:2018:FID]


[Adams:2017:BGI]


Androulaki:2013:EUP


Aleshi:2018:SAM


Alexander:2018:RXE


Ali:2015:BPUb


Ali:2019:DI


AlMahmood:2019:PRS


REFERENCES

Amin:2016:SFL


Ali:2015:ZPN


Ali:2018:ZMN


Ateniese:2017:RBX


Andreessen:2014:WBM


Andersson:2018:EBC


Anonymous:2012:VCS

Anonymous:2013:LC

Anonymous:2013:MBT

Anonymous:2014:MYW

Anonymous:2014:RBS

Anonymous:2015:B

Anonymous:2016:BDS

Anonymous:2016:BRG

Anonymous:2016:BRBa
REFERENCES


REFERENCES


Anonymous:2018:CMC


Anonymous:2018:EDC


Anonymous:2018:GST


Anonymous:2018:IPA


Anonymous:2018:KIO


Anonymous:2018:NKB


Anonymous:2018:UUR


Anonymous:2018:VCD

REFERENCES


Anonymous:2019:BCE


Anonymous:2019:GCU


Anonymous:2019:PBT


Anonymous:2020:DS


Nijeholt:2017:DFP


Antonopoulos:2015:MB

References


Tomaso Aste. The fair cost of Bitcoin proof of work. *SSRN Electronic Journal*, page ??,
REFERENCES

June 27, 2016. ISSN 1556-5068.


REFERENCES


Barski:2014:BB


Bargar:2016:EBS


Bariviera:2017:IBR


Barth:2018:CMS


Beck:2017:BTB


Bohr:2014:WUB


Barguil:2015:SIS


REFERENCES

[Bohme:2015:BET]

[BCJR15]

[Bogner:2016:DSA]

[Bennet:2019:EEM]

[Bamert:2013:SPB]

[Bhargavan:2016:FVS]


[BDWW14] Tobias Bamert, Christian

Beck:2018:BBR


Beekman:2016:DSA


Beegel:2018:IQC


Bellinger:2018:RBM


Berson:2013:VMS


Berlatsky:2015:B


Berg:2017:WDA

Chris Berg. What diplomacy in the Ancient Near East can tell us about blockchain technology. Ledger, 2(??):55–64, ???? 2017. ISSN 2379-
REFERENCES

Berengueres:2018:VCM


Brunnler:2017:LBU


Brunnler:2018:LBU


Bisho:2016:ABT


Bheemaiah:2017:BA


Bheemaiah:2017:CEN

REFERENCES


[BHS93] D. Bayer, Stuart Haber, and W. Scott Stornetta. Im-


[BK14] Iddo Bentov and Ranjit Kuma-}

[102x681] REFERENCES

[102x681] proving the efficiency and reliability of digital time-}


[BK18] Shweta Bhardwaj and Manish Kaushik. Blockchain

Bore:2017:TBE


Bertino:2019:DTB


Biryukov:2017:FSD


Blau:2018:PDS

Bell:2017:AOS


Brincat:2019:UBT


Bentov:2014:PAE


Buccafurri:2017:OLB


Buccafurri:2017:TAB


Blocher:2018:CSB


Bartoletti:2017:PSP


Bartoletti:2017:GFB


Bergquist:2017:DCT


Bonneau:2015:SRP


Bistarelli:2017:EEV

Stefano Bistarelli, Marco Mantilacci, Paolo Santancini, and Francesco Santini. An


Gianni Bonaiuti. Economic issues on M-payments and
REFERENCES

Bonneau:2016:EUE

Briere:2015:VCT

Boehm:2014:BFL

Biryukov:2015:BTI

Bartoletti:2017:ABO

Bohme:2017:TGD
Rainer Böhme and Paulina Pesch. Technische Grundlagen und datenschutzrechtliche Fragen der Blockchain-Technologie. (German) [Technical basics
REFERENCES


**Bolici:2016:MGD**


**Benchoufi:2017:BTI**


**Bradbury:2013:ATB**


**Bracey:2015:RPD**


**Bradbury:2015:BSB**


**Bradbury:2017:PB**


**Brenig:2017:TTD**


**Bag:2017:BBW**

S. Bag, S. Ruj, and K. Sakurai. Bitcoin block withhold-

**Bruhl:2017:BBD**


**Beikverdi:2015:TCB**


**Bag:2016:YAN**


**Bistarelli:2017:GBF**


**Bocek:2017:SCT**


**Bocek:2018:SCB**

Bashir:2016:WMP


Ben-Sasson:2014:ZDA


Bessani:2017:BFT


Barnett:2018:ADR


Burniske:2018:CI


Buerkle:2018:KLG

Buterin:2013:DMH


Buterin:2013:ENG


Buttafoco:2019:ESI


Burniske:2017:BRB


Bandelj:2017:MTE


Bystrom:2019:BRT


Bartoletti:2017:CDM


Caetano:2015:LBE

[Richard Caetano. Learning Bitcoin: embrace the


REFERENCES


REFERENCES

[1007/978-3-642-32946-3_28]


[CF15]


Choudhuri:2017:FUW


Chen:2019:FBB


Courtois:2014:OSB


Conti:2018:ESR


Chaum:1981:UEM


Chaum:1983:BSU

REFERENCES


[Chi18] Chun-Wei Chiang. Blockchain for trustful collaborations between immigrants, citizens and governments. M.S., West Virginia University, Morgantown, WV, USA, 2018. 51 pp. URL [Chi18]


[Cim18a] Catalin Cimpanu. $3.3 million stolen from Coinsecure Bitcoin Exchange, inside job suspected. *BleepingComputer* Web story., April 12, 2018. URL [Cim18a]

[Chi18] Chun-Wei Chiang. Blockchain for trustful collaborations between immigrants, citizens and governments. M.S., West Virginia University, Morgantown, WV, USA, 2018. 51 pp. URL [Chi18]
Cimpanu:2018:MSM


Cimpanu:2019:MFF


Chaudhary:2019:BBB


Chen:2017:BBP


Chavez:2016:AHA


Carlsten:2016:IBB

Miles Carlsten, Harry Kalodner, S. Matthew Weinberg, and Arvind Narayanan. On the instability of Bitcoin without the block reward.
Chen:2019:BBS


Chen:2019:DPB


Chen:2019:BPP

Combs:2014:BD


Chase:2016:TOA


Chen:2019:ASE


Clark:2016:FCD


Cobenz:2017:OSB


Coblenz:2017:OSB


Coelho:2008:ACE

Corso:2019:PAP


Coutu:2013:DMB


Courtois:2014:LCR


Courtois:2016:FBS


Chow:2017:BMC


Connor:2017:EBT


Cocco:2017:BBC

REFERENCES

Chen:2018:UVB

Coeckelbergh:2016:CNT

Ciaian:2016:DAV

Cross:2018:WMC
REFERENCES


REFERENCES


| Cocco:2019:ABM |
| LCCN QA76.9.A25. URL http://www.springerlink.com/content/978-3-662-44774-1. |


| Cusumano:2014:BE |

| Cusumano:2014:TSM |

| Campbell-Verduyn:2018:BBC |

| Conoscenti:2017:PPP |

| Cen:2017:IBP |
REFERENCES

URL http://doi.acm.org/10.1145/3070617.3070631.

Chen:2018:EBT


Chen:2017:UBB


Cai:2016:FDO


Cecchetti:2017:SCD


Dannen:2017:BBK


Dannen:2017:IES


Donier:2016:WAC

J. Donier and J-P Bouchaud. From Walras' auctioneer to

Dagher:2015:PPP


dBalthasar:2017:ABL


dCarnavalet:2014:CIV


DiCrescenzo:2017:PPD


Davidson:2018:BEI


Dyer:2017:OPE

James Dyer, Martin Dyer, and Jie Xu. Order-preserving encryption using approximate integer common divisors. In Garcia-Alfaro et al. [GANAHJJ17],
De:2018:UCM
[De18]

Dev:2014:BMA
[Dev14]

During:2017:EBT
[DF17a]
Tina Düring and Hagen Fisbeck. Einsatz der blockchain-technologie für eine transparente wertschöpfungskette. (German) [Use of blockchain technology for a transparent value chain]. In CSR und Digitalisierung. (German) [CSR and digitization], pages 449–464. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 2017.

Danezis:2013:PCB
[DFKP13]

Dickerson:2017:ACS
[DGHK17]
REFERENCES


Dimitri:2017:BMC


Dimitri:2019:TFB


Dixon:2017:BMB


Dorri:2017:TOB


Dorri:2019:MBM


deKruijiff:2017:UBU


Denning:2017:BMB

REFERENCES


DePrisco:1997:RPA


DePrisco:2000:RPA


Dhillon:2018:BEA


Dhillon:2018:BHC


Dhillon:2018:BS

[DMH18c] Vikram Dhillon, David Metcalf, and Max Hooper. Blockchain in science. In


DiFrancescoMaesa:2017:ABU

DiFrancescoMaesa:2017:BBA

DiFrancescoMaesa:2018:DDA
REFERENCES

DiFrancescoMaesa:2019:BBA


Dwork:1993:PPC


Daulay:2017:RAA


Dmitrienko:2014:OPB


Dmitrienko:2017:SWA


Dillenberger:2019:BAA

REFERENCES


**Dozier:2018:BBG**


**Dunphy:2018:FLI**


**DonetDonet:2014:BPN**


**dree12:2014:LMB**


**Drescher:2017:AT**


**Drescher:2017:BB**


**Drescher:2017:BPT**

REFERENCES


[Dre17j] Daniel Drescher. Hashing in the real world. In Blockchain Basics [Dre17b], pages 81–92. ISBN 1-4842-2603-8 (print), 1-4842-2604-6 (e-
REFERENCES


REFERENCES

Drescher:2017:SL

Drescher:2017:SMT

Drescher:2017:STD

Drescher:2017:SGF

Drescher:2017:TLA

Drescher:2017:UNO

Drescher:2017:UB
REFERENCES

1007/978-1-4842-2604-9_24.


REFERENCES

Spring Street, Suite 300, Silver Spring, MD 20910, USA, November 2017.


[Dus14] Valerie Duskin, editor. Virtual currency and the Bitcoin revolution: perspectives and considerations from Congressional Hearings, Economic


REFERENCES


Ekblaw:2016:BMD


Eskandari:2015:FLU


Eskandari:2017:DDA

REFERENCES


References


[EN19] Chidi Ezuma-Ngwu. Exploring Individual Intent towards Blockchain Technology in Response to Threats to Personal Data and Privacy. Ph.D., Northcentral University, San Diego, CA, USA, 2019. 185
REFERENCES

Ermilov:2017:ABA


Ey al:2014:HDL


Ey al:2014:MEB


ElBansarkhani:2016:ELB


Ey al:2018:MEB


Escalante:2018:ORT


Eberhardt:2017:BIC

Jacob Eberhardt and Stefan Tai. On or off the blockchain?

Etikala:2019:BBD


Eyal:2017:BTT


Epishkina:2017:DCH


Epishkina:2018:DCH

Fairley:2017:BWF


Fairley:2019:EWC


Farivar:2018:BTS


Farivar:2018:CWW


Fraser:2017:SFS


Frowis:2017:CWT


Fezeu:2017:SID

H. Kamdem Fezeu, T. Dj...
REFERENCES


REFERENCES


REFERENCES

Foth:2017:PBT


Fox:2017:B


Filtz:2017:EBA


Faisca:2016:DSI


Franco:2014:UBC


Firdaus:2019:RBB

REFERENCES


Frisby:2014:BFM


Fridgen:2017:EDI


Fuenfrocken:2016:HAS


Feld:2014:ADB


Fan:2019:BBC


Fugelsang:2019:BTC


Florian:2015:SRP

[FWB15] Martin Florian, Johannes Walter, and Ingmar Bauml-
REFERENCES


REFERENCES


García-Barriocanal:2017:DMB


Guo:2008:VMS


Gjermundrød:2016:GBC


Gervais:2014:PPB


Gao:2016:TMM

Xianyi Gao, Gradeigh D. Clark, and Janne Lindqvist. Of two minds, multiple addresses, and one ledger: Characterizing opinions, knowledge, and perceptions of Bit-


REFERENCES

Gencer:2017:SBT


Gerstl:2016:LBB


Geva:2016:MPB


Goyal:2017:OCI


Goldfeder:2014:SBW


Gennaro:2016:TOD

REFERENCES


Garcia:2005:LKD

[GH05]

Grimm:2017:ARB

[GH17]

Gandal:2017:PMB

[GHMO17]

Giaglis:2015:MIB

Gimigliano:2016:BMP

Girase:2018:PDV
Rohan Girase. Personal data vault management system and secured data access to service provider using blockchain technology. M.S., University of Massachusetts Lowell, Lowell,
REFERENCES


Giaglis:2014:TAI


Gobel:2017:IBS


Gervais:2014:BDC


Gervais:2016:SPP


Gervais:2017:BBP


Gafni:2000:DP


Guo:2016:BAO


Gatteschi:2018:BSC


Green:2017:BAP


Gentilal:2017:TBB


Godsiff:2015:BBB

REFERENCES

Goard:2019:FRA


Gomzin:2016:BNE


Gonzalez:2017:ASP


Goodin:2018:NBI


Goswami:2017:SAB


Gourisetti:2019:CFA

REFERENCES


Greenberg:2013:FSS  Andy Greenberg. FBI says it’s seized $28.5 million in Bitcoins from Ross Ulbricht, alleged owner of Silk Road. Forbes, ??(??):??, October 25, 2013. CODEN FORBA5. ISSN 0015-6914.


REFERENCES


**Garcia:2015:SSA**


**Gutoski:2015:HDB**


**Gencer:2017:SPS**


**Glaser:2014:ABC**


**HenriquezHerrera:2015:CNP**


**Halpin:2017:NDI**


**Halburda:2018:EBD**

Hanna Halaburda. Economic and business dimensions: Blockchain revolution without the blockchain? *Communications of the ACM*, 61


Danny Yuxing Huang, Hitesh Dharmadasani, Sarah Meiklejohn, Vacha Dave, Chris Grier, Damon McCoy, Stefan Savage, Nicholas Weaver,
REFERENCES


[HHK18] Ryan Henry, Amir Herzberg, and Aniket Kate. Blockchain access privacy: Challenges
REFERENCES


2. Hileman:2015:BMP

3. Hirai:2017:DEV


5. Herrera-Joancomarti:2016:PBT

6. Hari:2016:IBD
Adiseshu Hari and T. V. Lakshman. The Internet

He:2017:BBI


Huang:2017:BPC


Huang:2017:FTP


Herlihy:2016:BLA


Holden:2018:WRF

REFERENCES


REFERENCES


REFERENCES


REFERENCES

**Heitzenrater:2016:CES**

**Haghighat:2019:BWG**

**Huh:2019:BBM**

**Hofmann:2017:CWC**

**Hofmann:2017:DHD**
Erik Hofmann, Urs Magnus Strewe, and Nicola Bosia. Discussion — how does the full potential of blockchain technology in supply chain finance look like? In *Supply Chain Finance and Blockchain Technology: the Case of Reverse Securit..."
REFERENCES


**Hofmann:2018:DHD**


**Hofmann:2018:IWP**

REFERENCES

Hofmann:2018:SCF

He:2020:TRT

Hsiao:2018:DVS

Hull:2017:BDE

Hurlburt:2016:MBO
Hutchison:2017:AEM


Howard:2020:BCF


Huckle:2016:SB


Hong:2017:BEF


Hariya:2017:BPB


Hu:2019:AMP

Huang:2019:OSA


Islam:2019:BBF


Idelberger:2016:ELB


Ioannidis:2005:ACN

John Ioannidis, Angelos Keromytis, and Moti Yung, editors. *Applied cryptography and network security: third international


[Ito18] Joi Ito. The big ICO swindle: Many cryptocurrency speculators are banking on the theory that someone dumber than them will buy their tokens for more than they paid, that’s a pretty good bet... until it isn’t. Wired, ??(??):??, January 2, 2018. CODEN WREDEM. ISSN 1059-1028 (print), 1078-3148 (electronic). URL https://
www.wired.com/story/ico-cryptocurrency-irresponsibility/.


REFERENCES


**Johnson:2014:GTA**


**Jiang:2019:PPP**


**Juels:2013:NAS**


**Johnson:2018:BTS**

Josalyn Johnson. Blockchain technology securing health-
References


REFERENCES

Jadmayer:2016:CCCb

Jiao:2019:AMC

Jin:2017:BBB

Jadmayer:2017:MMC

K:2013:BCC

Karame:2016:BBS
Kabashkin:2017:RMB

Karame:2012:DSF

Kadariya:2018:CBB

Khan:2020:IPC

Kammuller:2017:PCA

Kanaracus:2018:CMM

Karame:2015:MBS
Ghassan O. Karame, Elli Androulaki, Marc Roeschlin, Arthur Gervais, and Srdjan

Karame:2016:SSB


Kate:2016:ICN


Katsiampa:2017:VEB


Kayser:2017:BJW


Kumaresan:2014:HUB


Kumaresan:2016:ASC


Kaushal:2017:EBS

P. K. Kaushal, A. Bagga, and R. Sobti. Evolution of Bitcoin and security risk

**Kabra:2020:MBB**

**Kondor:2014:IB**

**Kow:2016:HKW**
REFERENCES


[Kerner:2018:WUE] Sean Michael Kerner. Water utility in Europe hit by cryptocurrency malware...

Klems:2017:TIB


Kfir:2019:DCL


Kaga:2017:SPS


Korschinowski:2017:BTW


Korschinowski:2018:BWB


Akif Khan. Bitcoin — payment method or fraud

Khaknejad:2019:TEB


King:2013:PCP


Kim:2017:BBS


Krombholz:2017:OSC


Kawase:2017:TCT

Kuzuno:2017:BEA

Kiayias:2016:BMG

Kovalchuk:2017:ASA
Lyudmila Kovalchuk, Dmytro Kaidalov, Oleksiy Shevtsov, Andrii Nastenko, Maria Rodinko, and Roman Oliynykov. Analysis of splitting attacks on Bitcoin and GHOST consensus protocols. In 2017 9th IEEE International Conference on Intel-
REFERENCES


Kwon:2017:DBM


Kwon:2017:SAD


Kong:2015:PSI


Klarman:2019:UBN

REFERENCES

---

Kiffer:2017:SFI


Kaaniche:2017:MPP


Kaaniche:2017:PPP


Kumaresan:2015:HUB


Kasem-Madani:2017:TTU

[KMMW17] Saffija Kasem-Madani, Michael Meier, and Martin Wehner. Towards a toolkit for utility and privacy-preserving transformation of semi-structured data using data pseudonymization. In Garcia-Alfaro et al. [GANAHJ17], pages 163–179. ISBN 3-
REFERENCES


Kinai:2017:ABL

King:2012:PPP

Koehler:2017:UBT

Kadadha:2020:SBB

Karvelas:2017:UOR

Kraft:2015:DCB
REFERENCES


REFERENCES

Khan:2018:ISR

Khairuddin:2016:EMB

Kshetri:2017:CBSa

Kshetri:2017:CBSb

Kshetri:2018:BEH

Kshetri:2020:BBF

Kiayias:2015:TDS
Knirsch:2017:PPB


Kuebler:2018:ABA


Knirsch:2017:PPS


Kugler:2018:NWC


Kunnapas:2016:BSC

Kuzmanovic:2019:NNUa


Kuzmanovic:2019:NNUb


Kshetri:2018:BEV


Kuhn:2019:TSS


Kumaresan:2016:ISC


Kwon:2014:TCM


Kuhn:2019:RDL


Khazraee:2017:MNO


Laurence:2017:B


Lahmiri:2018:CRM


Lewenberg:2015:BMP


Laurie:2004:PWP


Liao:2017:EPS


Luu:2016:MSC


Leung:2017:UBO

[LD17] Daniel Leung and Astrid


Lundbaek:2017:CGB


Laszka:2017:PPS


Lee:2013:MGB


Lee:2015:HDC


Leinonen:2016:DBC

REFERENCES


[Leh17] Edward Lehner, Dylan Hum-


REFERENCES


REFERENCES


[LML+19] LealFilho:2018:HSS


[LMC18] Leiding:2016:SMB


[LMH16] Liu:2019:ECE


[LMLA17] Lajoie-Mazenc:2017:HBC


[LMR17] Lewis:2017:BFM

Lee:2017:FVE


[LMWL17]

Luu:2016:SSP


[LNZ+16]

Linnho-Popien:2017:B


[LP17a]

Linnho-Popien:2017:BNB

REFERENCES


Zum Geleit. (German) [Blockchain — preface]. Digitale Welt, 2(1):26–28, December 2017. ISSN 2510-3008.


REFERENCES

URL http://doi.acm.org/10.1145/3126973.3126980.


[LSP82] Leslie Lamport, Robert Shostak, and Marshall Pease. The Byzantine Generals problem. ACM Transactions on Programming Languages and Systems, 4(3):382–401, July 1982. CODEN ATPSDT. ISSN 0164-0925 (print), 1558-4593 (electronic). They proved that Byzantine agreement (the subject of Section ??) cannot be reached unless fewer than one-third of the processes are faulty. This result assumes that authentication, i.e., the crypting of messages to make them unforgeable, is not used. With unforgeable messages, they show that the problem is solvable for any \( n \geq t > 0 \), where \( n \) is the total number of processes and \( t \) is the number of faulty processes.


REFERENCES

Lintilhac:2017:MBP

Luu:2015:DIC

Li:2019:DCB

Lustig:2018:AAB

Luther:2017:DGP

Luu:2017:TSP

Lee:2016:ESM
V. Lee and H. Wei. Exploratory simulation models for fraudulent detection in Bitcoin system. In *2016 IEEE 11th Conference on In-
169

REFERENCES


K. Liao, Z. Zhao, A. Doupe, and G. J. Ahn. Behind closed doors: measurement and analysis of CryptoLocker ransoms in Bit-


REFERENCES


Moser:2014:TRS


Melara:2015:CBK


Melo:2017:HBC


Malkhi:2012:PCF


Mazzei:2020:BTI

Daniele Mazzei, Giacomo Baldi, Gualtiero Fantoni, Gabriele Montelisciani, Antonio Pitasi, Laura Ricci, and Lorenzo Rizzello. A Blockchain Tokenizer for In-


Meshkov:2017:SPR


McKay:2019:CES


McLeod:2013:BSV


McGhin:2019:BHA


McMillan:2013:HSW

Robert McMillan. $1.2m hack shows why you should never store Bitcoins on the Internet. Wired, ??(??):??, November 7, 2013. CODEN WREDEM. ISSN 1059-1028 (print), 1078-3148 (electronic).

Moore:2018:RRB


Mac:2016:BBS

Trent J. Mac, Donald, Darcy W. E. Allen, and Jason Potts. Blockchains and the boundaries of self-organized economies: Predictions for the future of banking. In Banking Beyond Banks and Money. Springer-Verlag, Berlin, Ger-


REFERENCES


Merkle:1988:DSB


Mera:2019:QBS


Moser:2016:BC


Meyrich:2019:BBT


Mago:2016:BHB


Moura:2017:BVE


Mytis-Gkometh:2017:NKR

REFERENCES

Mytis-Gkometh:2018:NKR


Miers:2013:ZAD


Maull:2017:DLT


Matzutt:2016:PDW


McCorry:2017:ATR


Milutinovic:2016:PLE

Mitar Milutinovic, Warren He, Howard Wu, and Maxinder Kanwal. Proof of luck:


Magaki:2016:ACSB


Miller:2014:NSP


Miller:2015:NSP


Moin:2019:SID


Miller:2014:ABC


Mann:2015:TFA

Christopher Mann and Daniel Loebenberger. Two-factor authentication for the Bitcoin protocol. In Security and Trust Management, pages 155–171. Springer-Ver-


M. Matta, I. Lunesu, and M. Marchesi. The predictor impact of Web search media on Bitcoin trading volumes. In *2015 7th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management (IC3K)*, volume 01, pages 620–626. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, November 2015.


D. D. F. Maesa, A. Marino, and L. Ricci. Uncovering the Bitcoin blockchain: An analysis of the full users
Monamo:2016:ULR


Monamo:2016:MAB


Mengelkamp:2017:BBS


Monaco:2016:TBP


Monaco:2016:ULR


Monaco:2016:MAB


Mengelkamp:2017:BBS

REFERENCES


REFERENCES

1007/978-3-319-48478-5_1.

Morabito:2017:BP


Morabito:2017:BVS


Morabito:2017:BIT


Morabito:2017:CBP


Morabito:2017:DC


Morabito:2017:SBS


Morabito:2017:SCL

Vincenzo Morabito. Smart

Meiklejohn:2013:FBC

Meiklejohn:2016:FBC

Marandi:2017:RPH

Maxwell:2019:SSM

Malomo:2018:NGC
Mohanty:2020:ELI


Montalcini:2015:DTT


Maxwell:2015:EIO


McCorry:2015:AKE


McCorry:2017:RAB


Muehlemann:2018:SPD


Muftic:2016:BCC

Sead Muftic. BIX certificates: Cryptographic tokens for anonymous transactions

**Mullan:2014:BC**

**Mullan:2014:BDV**

**Mullan:2014:BD**

**Mullan:2014:BM**

**Mullan:2014:BO**
REFERENCES


[Mullan:2014:EB]


[Mullan:2014:GB]


[Mendling:2018:BBP]


[Miller:2016:HBB]


[Martins:2011:IBP]

Sergio Martins and Yang Yang. Introduction to Bitcoins: A pseudo-anonymous


Nakamoto:2008:BPP


Nakamoto:2008:RBP


Nakamura:2018:CRU


Narvaez:2019:UBB


Naviglia:2017:TER


Narayanan:2016:BCT


Nair:2017:BEB

REFERENCES

Narayanan:2017:BAP


Notheisen:2017:TRW


Nofer:2017:B


Nathan:2019:BMD


Neudecker:2017:CNI


Neilson:2016:BFT


Niayeshpour:2019:EVB


Nichols:2017:NDH


Nishibe:2016:EMG


Nishibe:2016:MSF


Narayanan:2016:RPC


Norta:2019:SFB

REFERENCES


Noether:2016:RCT


Narayanaswami:2019:BAS


Nordrum:2017:ITB


Nordrum:2017:WSO


Nordrum:2017:GBD


Norta:2015:CRL


Notheisen:2019:EDM

[Not19] Benedikt Notheisen. Engineering Decentralized Mar-
REFERENCES


Norvill:2017:ALU

[193]


Norvill:2017:ALU

[194]

Neisse:2017:BBA

[NPSF17]


[195]

Nissen:2017:NVT

[NST+17]


[196]

Nakamura:2017:DPS

[197]


[198]

Ojo:2017:BNG

[OA17]

Adegboyega Ojo and Samuel Adebayo. Blockchain as a next generation government information infrastructure: A review of initiatives in D5 countries. In Government 3.0 – Next Generation Gov-


Elisabeth Oswald and Marc
REFERENCES


References


[Osb18a] Charlie Osborne. Hacker returns 20,000 ETH stolen during CoinDash ICO: Cryptocurrency stolen from the platform during an ICO has reappeared as mysteriously as the attacker’s apparent conscience. Web article., February 26, 2018.
Osborne:2018:FBB


Ozyilmaz:2017:ILP


Palmer:2018:CMT


Panurach:1996:MEC

REFERENCES


REFERENCES

11, November 2015. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).


Pec2016:BCB

[Morgan E. Peck. Blockchain world — do you need a blockchain? This chart will tell you if the technology can solve your problem. IEEE Spectrum, 54(10):38–60, October 2017. CODEN IEESAM. ISSN 0018-9235 (print), 1939-9340 (electronic).]

Pec2017:BWD


Pec2017:BHT


PBCFAM2013:PRA


Per09


Per17


PF18

REFERENCES


Piasecki:2016:GSC


Pilkington:2016:BTP


Pal:2019:UBP


Perelgut:2016:HY


Platzer:2013:BKG


Padon:2017:PME

REFERENCES


[Pop17b] Nathaniel Popper. There is nothing virtual about Bitcoin’s energy appetite. *New York Times*, ??(??):


REFERENCES


REFERENCES


REFERENCES


REFERENCES


Ro:2013:BTH


Roio:2013:BET


Roio:2018:AS


Roose:2018:KDC


Reijers:2016:GBT


Ross:2003:DP


Rosenfeld:2011:ABP


Rosenfeld:2012:OCC


Rothstein:2017:EMS

[Rot17] Adam Rothstein. The end of money: the story of Bitcoin, cryptocurrencies and the blockchain revolution. Nicholas Brealey Publishing,
REFERENCES


Ron:2014:HDD


Rao:2011:UPB


Rivest:1996:TLP


Sadeghi:2013:FCD


Sallal:2018:ESP

Muntadher Fadhil Sallal. Evaluation of security and performance of clustering in the bitcoin network,

Sun:2017:RCA


Sansonetti:2014:BVW


Sansonetti:2014:BOR

Riccardo Sansonetti. Le Bitcoin: opportunités et risques d’une monnaie virtuelle. (French) [Bitcoin: opportunities and risk of a virtual currency]. La vie économique (Berne), 87(9):44–46, 2014. ISSN 1011-386X.

Schrijvers:2017:ICB


Shafagh:2017:TBB


Sai:2019:ASI

REFERENCES


[Sch13] Andreas Schildbach. Bitcoin wallet 2.4.1 released. Web document., Febru-


[SD16b] Mike Sharples and John Domingue. The blockchain and kudos: A distributed

Steger:2017:SWA


Samavi:2017:FWB


Segura:2018:DCC


Seshadri:2018:BBS


Sgantzos:2019:AI

REFERENCES


[Shubbar:2017:UMI] Safa Shubbar. Ultrasound medical imaging systems using telemedicine and blockchain for remote monitoring of responses to neoadjuvant chemotherapy in...

Shukla:2019:SIE

Sanda:2016:PNA

Saito:2019:HMD

Sidel:2014:OCS

Shoshitaishvili:2014:DYF

Sirer:2016:BGS

Sirer:2016:TPS
REFERENCES

Sixt:2017:ADB


Sixt:2017:B


Sixt:2017:BZ


Sixt:2017:BF


Sixt:2017:BAD


Sixt:2017:GBK

REFERENCES

10.1007/978-3-658-02844-2_11.

Sixt:2017:E

Elfriede Sixt. Ethereum. In 

Sixt:2017:LFL

Elfriede Sixt. Lösungsansätze für die Limitationen des Bitcoin-Systems. (German) [Solving the limitations of the Bitcoin system]. In 

Sixt:2017:FBN

Elfriede Sixt. Funktionsweise des Bitcoin-Netzwerks. (German) [How the Bitcoin network works]. In 

Sixt:2017:LBS

Elfriede Sixt. Limitationen des Bitcoin-Systems. (German) [limitations of Bitcoin systems]. In 

Sherman:2019:OVB


Sapuric:2014:BV1

REFERENCES

1007/978-3-319-11460-6_22.

**Sas:2015:ETB**


**Sas:2017:DTE**


**Sorge:2012:BEE**


**Sorge:2013:BZZ**


**Sko19**

Stefansson:2017:SSU


Singh:2018:CRA


Sleiman:2015:BMD


SM-D:2016:BRB


Saxena:2014:IAB


Smith:2018:BAD

REFERENCES


Song:2016:SBP


Song:2018:ASB


Southurst:2013:BPP


Solat:2017:BAZ


Sadeghi:2017:BT


Sporny:2017:LDW

REFERENCES

Sprinkel:2013:TBD


Singh:2020:BSC


Santos:2013:OPB


Seebacher:2017:BTE


Sutton:2017:BEP


Sukhwani:2019:PMA


Supra:2016:IHC


Shrestha:2016:TDD


Singh:2019:BBC


Svetinovic:2017:BEI


Spathoulas:2017:PPP


Sward:2018:DIB

Andrew Sward, Ivy Vecna, and Forrest Stonedahl. Data

**Sillaber:2017:LCS**


**Swa16**


**Swe16**


**Schwartz:2014:RPC**

Sharma:2017:SDI


Shah:2014:BRB


Sun:2016:BBS


Sompolinsky:2015:SHR


Sompolinsky:2017:BUI


Sompolinsky:2018:BUI

REFERENCES

(3):46–53, March 2018. CO-
DEN CACMA2. ISSN 0001-
0782 (print), 1557-7317 (elec-
tronic). URL https://


N. Szabo. Bit gold. Un-
enumerated. Web docu-
ment., 2008. URL https://
unenumerated.blogspot.
com/2005/12/bit-gold.html.

[Stoykov:2017:VFB]

Lyubomir Stoykov, Kai-
wen Zhang, and Hans-
Arno Jacobsen. VIBES:
Fast blockchain simula-
tions for large-scale peer-
to-peer networks: Demo.
In Proceedings of the 18th
ACM/IFIP/USENIX Mid-
dleware Conference: Posters
and Demos, Middleware '17,
pages 19–20. ACM Press,
New York, NY 10036, USA,
URL http://doi.acm.org/
10.1145/3155016.3155020.


Björn Tackmann. Sec-
ure event tickets on a
blockchain. In Garcia-
Alfaro et al. [GANAHHJ17],
pages 437–444. ISBN 3-
319-67815-9 (print), 3-319-
67816-7 (e-book). ISSN
0302-9743 (print), 1611-
3349 (electronic). LCCN
QA76.9.A25. URL http://
link.springer.com/chapter/1

10.1007/978-3-319-67816-
0_26.

[Tamang:2019:DRM]

Sujata Tamang. Decentral-
ized reputation model and
trust framework blockchain
and smart contracts. Mas-
ter’s, Uppsala Universitet,
Uppsala, Sweden, 2019. URL
http://search.proquest.
com/pqdtglobal/docview/
2301552161.


Michael Bedford Taylor. Bit-
coin and the age of bespoke
silicon. In Proceedings of
the 2013 International Con-
ference on Compilers, Ar-
chitectures and Synthesis for
Embedded Systems (CASES),
CASES ’13, pages 16:1–
16:10. IEEE Computer Soci-
ety Press, 1109 Spring Street,
Suite 300, Silver Spring, MD
URL http://cseweb.ucsd.edu/~
mbtaylor/papers/bitcoin_
taylor_cases_2013.pdf;
REFERENCES


Timme:2015:FNE


Tuli:2019:FBB


Tech:2017:BTO


Toyo-da:2017:IHY


Tromp:2014:CCMa


Tromp:2014:CCMb


Tromp:2015:BHP

John Tromp. Beyond the Hashcash proof-of-work


[TTC16] Don Tapscott, Alex Tapscott, and Jeff Cummings. *Blockchain revolution: how the technology behind Bitcoin is changing money, business, and the world*. Brilliance Audio, Grand Haven, MI, USA, 2016. ISBN 1-5113-5766-5. LCCN RZC 5626. 11 audio discs (14 hr., 17 min.).


REFERENCES


Marie Vasek, Joseph Bonneau, Ryan Castellucci, Cameron Keith, and Tyler Moore. The Bitcoin brain
REFERENCES


vanderHeijden:2017:BSR


vandenHoo:2014:VV


Vilim:2016:ABM


Velasco:2016:SBE


Vo:1991:FHF


Voulgaris:2019:BTI

REFERENCES

/Venkatakrishnan:2017:DRBa


/Venkatakrishnan:2017:DRBB


/Vallois:2017:BTC


/Vandervort:2015:IDB


/Viana:2016:TTI


/Vigna:2015:BCT


/Vasek:2015:TNF

Marie Vasek and Tyler Moore. There’s no free lunch, even using Bitcoin: Tracking the popularity and profits of virtual currency scams. In Brenner et al. [BCJR15], pages 44–61.


REFERENCES

Volety:2019:CBW


Velner:2017:SCM


Vasek:2014:EAD


Vukolic:2016:QSB


Vukolic:2017:RPB


Vo:2017:VBR

REFERENCES


[Wang:2017:DVP] Huaqun Wang, Debiao He,

**Wijaya:2016:EAM**


**Willett:2013:MCS**


**Wilmer:2017:NE**


**Wang:2015:EME**


**Wang:2020:PRI**


**Wang:2019:MKS**

REFERENCES


REFERENCES

Wang:2017:ABS

Winkler:2018:FBK

Wang:2019:LBI

Wolfram:2018:RAB

Woo:2014:ESD

Wörner:2016:DRT

Wang:2017:PTP


Haoyan Wu. A distributed blockchain ledger for supply
REFERENCES

chain. M.S.E.C.E., Purdue University, West Lafayette, IN, USA, 2017. 68 pp. URL http://search.proquest.com/pqdtglobal/docview/1980717693.


[WZQ+17] Qianhong Wu, Xiwen Zhou, Bo Qin, Jiankun Hu, Jianwei Liu. Secure joint Bitcoin trading with partially blind


[WWZ+20] PengCheng Wei, Dahu Wang, Yu Zhao, Sumarga Kumar Sah Tyagi, and Neeraj Kumar. Blockchain database cloud data integrity protection mechanism. Future Generation Computer Systems, 102(??):902–911, January 2020. CODEN FGSEVI. ISSN 0167-


REFERENCES

Xia:2017:ETH

Xu:2019:DBB

Xu:2017:CBC

Xu:2017:ESE
REFERENCES


[Yew18] Aniket Yewale. Study of blockchain-as-a-service systems with a case study of hyperledger fabric implemen-
proquest.com/pqdtglobal/docview/2181699563.

Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, December 2015.

[YMRS18] Dylan Yaga, Peter Mell, Nik Roby, and Karen Scarfone. Blockchain technology overview. Draft Re-
port NISTIR 8202, National Institute for Standards and Technology, Gaithersburg, MD, USA, January 2018. 2

micro-pricing using cryptocurrency technologies. In Proceedings of the 14th International Conference on Advances in Mobile
URL http://doi.acm.org/10.1145/3007120.3007151.

secure blockchain-enabled packet parser for software defined networking. Computers & Security, 88(??):Article
Yu:2017:FD


Yue:2019:BI


Yu:2019:CAF


Yin:2017:FEP


Yoo:2018:SSA


Yu:2016:HDG

[YWJ +16] Xiao Yue, Huiju Wang, Duwei Jin, Mingqiang Li, and Wei Jiang. Healthcare data gateways: Found healthcare intelligence on blockchain with novel pri-

Yamazaki:2018:JRC


Yamazaki:2018:JPC


Yang:2019:BBL


Zamir:2019:ABN


Zhao:2016:HVP

Zhang:2016:TCA


Zhu:2017:AIF


Zhu:2017:EAI


Zeilinger:2016:DAM


Zetter:2013:HFT


Zhao:2016:OBI


Zhao:2017:EOB

J. Leon Zhao, Shaokun Fan, and Jiaqi Yan. Erratum to:

**[ZG15]**

Chen Zhao and Yong Guan.

**[Zhu:2016:IIS]**


**[ZGR17]**


**[Zha19]**

Zhang:2019:ZCS


Zhao:2019:BBP


Zheng:2017:PHA


Ziegeldorf:2017:SAD


Ziegeldorf:2018:SAD


Zohar:2015:BUH

REFERENCES

**Zohar:2017:RTD**


**Zhang:2017:NPB**


**Zhang:2017:PPB**


**Zhang:2015:IEB**


**Zhang:2017:IEB**


**Zhu:2019:CTB**

REFERENCES

Zander:2018:DSD

Zhou:2016:DBA

Zamyatin:2017:SFS

Zhong:2019:SLS

Zhong:2019:SVL

Zheng:2020:OFB
Haibin Zheng, Qianhong Wu, Jan Xie, Zhenyu Guan, Bo Qin, and Zhiqiang Gu. An organization-friendly blockchain system. Computers & Security, 88(??):Article
REFERENCES

101598, January 2020. CO- 
DEN CPSEU. ISSN 0167-4048 (print), 1872-6208 (electronic). URL http:// 

Zhang:2019:SPB

[ZXL19] Rui Zhang, Rui Xue, and Ling Liu. Security and pri-
vacy on blockchain. ACM Computing Surveys, 52(3): 
51:1–51:??, July 2019. CO- 
DEN CMSVAN. ISSN 0360- 
0300 (print), 1557-7341 (elec-

Zhu:2016:AOA

of applications of blockchain technology to equity crowd-
funding in China. Financial Innovation, 2(1), 
December 2016. CO- 
DEN ????? ISSN 2199- 
4730. URL http://link. 
springer.com/article/10. 

Zupan:2017:HDP

[ZZJ17] Nejc Zupan, Kaiwen Zhang, 
and Hans-Arno Jacobsen. Hyperpubsub: A decen-
tralized, permissioned, publish/subscribe service us-
ing blockchains: Demo. In Proceedings of the 18th 
ACM/IFIP/USENIX Middleware Conference: Posters and Demos, Middleware ‘17, 
pages 15–16. ACM Press,