A Bibliography of Publications by, and about, Garrett Birkhoff

Nelson H. F. Beebe
University of Utah
Department of Mathematics, 110 LCB
155 S 1400 E RM 233
Salt Lake City, UT 84112-0090
USA

Tel: +1 801 581 5254

E-mail: `beebe@math.utah.edu`, `beebe@acm.org`, `beebe@computer.org` (Internet)
WWW URL: `https://www.math.utah.edu/~beebe/`

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Abstract

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Title word cross-reference

11 [NBBKV10]. 14 [YNBV11]. **$17.50** [Bir77c]. 2 [KdC05]. 3 [NBNTGV11, YNBV11]. 4 [NB16, YNBV11]. 7 [NBBKV10, NBNTG12]. $^{-1}$ [CRUV00]. $B(H)$ [AR15]. C^* [AR12, BBK22]. C_0 [Bir64d]. k [NTNBV14]. $\mathcal{B}(H)$ [AGK+21]. N [Kal93, CIL07, CSV80, RS81]. R^4 [BGT95]. $T^*\mathbf{T}^n$ [BC06]. $\mathrm{U}_q[\mathrm{gl}(m|n)]$ [De 03]. $wU^d_{r,s}(\mathrm{osp}(1|2n))$ [LY13].

***** [Sun91]. **-algebras** [BBK22]. **-modules** [AR12]. **-periodic** [KdC05]. **-semigroups** [Bir64d]. **-Stage** [NBNTG12, NBBKV10, NBNTGV11, NB16, YNBV11]. **-th** [CSV80].

1.2 [Kal93]. **11th** [BW61]. **12.50** [GG75]. **16th** [Bir78a]. **1862** [Bir56b]. **1900** [Bir79e]. **1960** [BBL62]. **1967** [BBAS69]. **1968** [BV70b, BV70a]. **1970** [BH71]. **1973** [Ano77]. **1978** [Bir79f]. **1980** [Sch81]. **1981** [Bir83a, Bir83b]. **1992** [Bir97]. **1996** [Var98]. **19th** [Bir78a].

2C [KRYG82]. **2ième** [MB73].

3 [Anoxx].

5-stage [NBHYV09]. **586** [KRYG82].

6 [BV59a].

8-stage [NTNBV14]. **80** [Bir74c].

A. [Bir62b]. **Abbildungen** [Lie18]. **Abel** [SP68]. **Abelian** [Bir34l, Bir34r]. **Abrégé** [Bir79e]. **Abstract** [Bir35b, Bir35a, Bir35c, Bir35l, FGP10b]. **Academia** [Bir74b]. **Academic** [Anoxx, Bir64b]. **Accelerated** [KRYG82]. **Accurate** [BF70]. **acoustics** [Bir85, Bir86]. **actions** [Bew71]. **Active** [SUB12]. **acyclic** [ACDM14, CdFM08, Fer15, kJ16, CdFM09]. **Adaptive** [KRYG82]. **Added** [BL80, BBL84]. **Advanced** [Ann33, AR34, Bir34q, BRW35, CB34, Dun35, DS35, Esc34, ERG+35, GL35, JS35, ØB37]. **Advances** [Anoxx]. **Adventures** [Bir77c]. **Ahlberg** [Bir69c]. **airfoil** [Bir46c]. **Albedo** [Bir60a]. **Algebra** [BM41, BM53, BM65a, BM65b, BB70a, BB70b, BH71, BB73, Bir76h, Bir76g, BM77, BL97, Cor96, MB67, MB79, MB88, RO87, Bir74a, Bir34b, Bir44b, Bir46a, Bir46e, Bir46f, Bir71e, Bir72b, Bir73a, Bir74c, Bir74d, BL74, Bir76b, Bir76c, Bir76f, Bir79a, Bir80a, Bir82c, BTL99, BCGVS11, Bir46a, BB73, Bog71, Bog85, Klo72, Mew67, Bir74b, BM92]. **Algebraic** [RMKPZ22, BBK22, Bir34f, Bir34g, GKM04, GZ08, Hoo75]. **Algebras** [LS93, Bau98, BBK22, Bir35e, Bir35l, Bir36h, Bir37j, BW39, BB46, BW49, BL70, MS92]. **Algèbre** [MB70, MB71, MB72, MB73, MB76, MB96, MB73]. **algorithm** [BBC88, Bru82, JDM60, LCXL11, KRYG82]. **Algorithmic** [SW08, LLL86, Müh81]. **alla** [Ven02]. **Allouch** [MB73]. **Almost** [Tau61b]. **Alt** [Anoxx]. **Alternating** [BV57a, BVY62, BV59b]. **alternative** [CC03]. **Amer** [Bir74c]. **America** [Tar77]. **American** [BL59, BW61, BBL62, BV70b, Gum66, Sec62, BBAS69, BH71, Bir77d, Tar77]. **analogue** [Gol01]. **Analysis** [Bir48c, BV70a, Bir73e, Bir78a, GG75, Gum66, Tau63b, Var62, BK52, Bir67b, Bir73c, Bir80a, BK84, FGK+63, Kop75, Ano77]. **Analytic** [BY50, BAS70, Bir72d, Lor82, MCS11]. **Analytical** [Bir38a, Let76]. **and/or** [Fin08]. **Angenaharte** [Lie18]. **Angewandte** [BB73]. **Angular** [Bir71c, Bir72a]. **anharmonic** [AWD86]. **anniversary** [BM92]. **annual** [Tar77]. **Appendixes** [Bir56b]. **application** [BdPK07, Ric11]. **Applications** [BD04, Bir34b, KLR19, LL07, Bir38c, Bir49c, BSV68, Bir82c, Bir95, Bir69c]. **Applied** [BL59, BW61, BBL62, BB70a, BB70b, Bir77b, Bir80a, Cut63, HY81, How62, Klo72, Sec62, BBAS69, Bir61c, BV70b, BH71, FGP10a, FGP10b, You97, BB73]. **Applying** [GV96]. **apportionment** [Bir76d]. **approach** [CHS03, Hoo75, Müh81]. **approaching** [Roq11]. **Approximate** [PSM18, CP11, Ric11]. **Approximation** [BdBSW66, Gar65, AIN12, BdB65, Bir67d, BF67, Bir69e, Bir72d, BCG74, Gar65]. **April** [BBAS69, BL59, BW61, BBL62, BV70b]. **arbitrarily** [LIW18]. **arbitrary** [BS82, DDCY17]. **area** [ST84]. **arithmetic** [Bir37a, Bir42a]. **arithmetical** [Ric11]. **Arthur** [Wei87]. **articles** [Bir37f]. **assistance** [Ano77, GG75]. **Association** [Tar77]. **Astrophysics** [Tau63c]. **Asymptotic** [BK66b, CG00]. **attainment** [SPH15]. **Automata** [Tau63b, BL74]. **automorfismos** [Bir46d]. **automorphisms** [Bir33c, Bir34l, BH36]. **automorphismus** [Bir34m]. **Autonomous** [BK76a, BF88, QQ23]. **Averaged** [Bir64a]. **Averages** [BD04]. **axially** [BW54a]. **axiom** [BB84]. **Axiomatic** [Bir33a]. **axiomatics** [Sch11].

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Bir57, Gla69, RR21, Bir34i, Bir34k, Bir34u]. **extreme** [Shi22].

F. [Bir62b]. **Face** [CdFM09]. **Faces** [CM10]. **Fact** [Bir50b, Bir55b, Bir60b, Bir63a]. **factorization** [KJ06]. **families** [BB94, BK76a]. **family** [Shi22]. **fast** [LCXL11]. **Fe** [Sch81]. **Felix** [BB88]. **few** [BG74]. **few-point** [BG74]. **Field** [Boy70, BV70b, Hor78]. **fields** [BB49]. **fiftieth** [BM92]. **fifty** [Tar77]. **fifty-nineth** [Tar77]. **Final** [Bir75a]. **Finite** [BF71, BF74, Bir34c, BM74, Ric11, FGP10a]. **Finite-dimensional** [FGP10a]. **finitely** [BTL99]. **Finsler** [Rut98]. **first** [BK66b, Fin08, KdC05]. **first-order** [BK66b]. **Fitted** [MNS74]. **fixed** [Bar67]. **Flow** [BC49, BPS50, BPS52, Bir73d]. **Flows** [BD04, Bir61a, Rou04, BW54a, BGZ54, Bir64c, Bir78b]. **Fluid** [BC49, Bir90, Bir73d, Bir78b, Bir83d, Bir84c, Bir84b]. **fluids** [Bir87, Bir88b]. **fonctions** [Bir50c]. **fondamentales** [MB70]. **force** [BB49]. **force-fields** [BB49]. **forced** [KWM13]. **Form** [Rou04, AWD86, AW89, CRUV00, FGP10a, FGP10b, Kal93, Nik96, She08]. **Formation** [Bir53a]. **forms** [BGT95]. **Formula** [LL07, CC03, Lim07, MCS11]. **Formulacion** [Bir46b]. **Formulae** [BN90]. **Formulas** [Jet87, Dyn84, Jet82]. **formulation** [McE93]. **FORTRAN** [KRYG82]. **foundations** [Bir41, Bir44a]. **four** [NBSV08]. **four-stage** [NBSV08]. **four-step** [NBSV08]. **Fourier** [BK52, Bir54b, Bir67b]. **fractional** [JWH16]. **Frank** [Gum66]. **Franz** [Anoxx]. **Free** [Bir36d, Bir61a, BH63, Bir64c, Bir36a, Bir48d, Bir49b, Bir52a]. **freedom** [Kal93]. **Freeman** [Bog85]. **French** [Bir50c, SW65]. **function** [Bir80a, DDH18, Fin08]. **functional** [BK84, CHS03]. **functionals** [Bir34k]. **Functionen** [Lie18]. **Functions** [BY50, Gar65, Tau61b, AB12, Bir34a, Bir34i, Bir35f, Bir50c, Bir60a, Let76, Lie18, MCS11]. **Further** [DKPU18]. **Future** [Bir77b, Bir75g].

G [Ant63, Bir80a, Cut63, GG75, Gum66, How62, Lan63]. **G.** [Bir46b, Bir79d, JDM60, Lan63]. **G.-C** [Lan63]. **Galerkin** [WHWW21]. **Galois** [Bir37b, Sar37]. **Games** [Tau63c]. **Garret** [Bog71]. **Garrett** [Ano77, Bog85, Kop75, Mew67, Wei87, AW83, Ano75, Bir37f, Klo72, Mac98, RO87, Sax96, Var98, You97]. **Gauss** [Jet87]. **Gaussian** [BP71, Dyn84, Jet82]. **General** [AB39, AB40, Gar65, Bir36i, Bir37e, Bir39a, Bir40b, Bir79d]. **Généralisation** [SW65]. **generalization** [BK73, LLL86, SW65]. **Generalized** [BH35a, BH35b, Bir37c, Bir42a, MNS74, Mil17, SUB12, Bau98, Bon88, BS93, Hor78, KL88, McE93, MCS11]. **generated** [BTL99]. **geometies** [Bir34c]. **geometric** [RMKPZ22]. **Geometrie** [BB87]. **geometries** [Bir35d]. **Geometry** [Bir79f, Gum66, Tau62, Bir41, Bir44a, BK75, Bir82b, FGK$^+$63]. **George** [Bir82a, Zun02]. **German** [Bir46a, BB73, Lie18]. **Gerstenberg** [Bir80b]. **GITA** [CRUV00]. **Goldstein** [Gum66]. **Goldstine** [Bir78a]. **Gordon** [LIW18]. **grands** [MB71]. **Graph** [KLR19, Tin86]. **Graphs** [DKWL20]. **Grätzer** [Bir79d]. **gravitation** [Bir82a]. **Gravitational** [Boy70]. **gravity** [Zeg05]. **great** [Bir75g]. **Greedy** [DC18]. **Greenspan** [G.68]. **Group** [Bir37b, Tau61b, Bir36g, Bir43a, GKM04, Reu86]. **Groupes** [Bir49a]. **groupoids** [Bir34d, Bir34e]. **groups** [Bir33c, Bir33d, Bir34l, Bir34m, Bir34r, Bir35b, Bir35a, Bir35n, Bir36a, Bir36b, Bir36d, Bir36f, Bir36g, Bir36j, Bir36k, BH36, Bir37j, Bir38a, Bir39a, Bir42b, Bir45, Bir50a, MOSZ02]. **growth** [BMH58]. **Grundlagen** [BB87]. **grupos** [Bir46d]. **guaranteed** [CLY06]. **guide** [Bir80a]. **Gustavson** [AWD86, AW89, CRUV00, Kal93, Nik96].

H [Bir69c, Bir78a, Bog85]. **H.** [Bir80e]. **Hadamard** [Bir75h, RGZ18]. **Hamiltonian** [BB05, BC06, FGP10a, FGP10b, McE93]. **Hamiltonians** [AW89]. **hard** [Lie18]. **Harmonic** [BY50, BAS69, Lie18]. **Harmonischer** [Lie18]. **Harvard** [Ano77, GG75, Bir83e, Bir89, Bir91]. **Hausdorff** [Bir34d, Bir34e]. **heat** [BK54b, DR56]. **Heims** [Bir83a, Bir83b]. **Heisenberg** [KJ06]. **Held** [BBAS69, BL59, BH71, BW61, BV70b, BS84, Sch81]. **Helmholtz** [Bir62a]. **Henrici** [Bir80a, Bir80d]. **Herbert** [Bir80b]. **Herman** [Bir78a]. **Hermite** [SP68, AB12, ACD18, AS69, BP67, BSV68, BNBV10, CG00, CSV80, CJMT74, DD16b, DDH18, Dyn84, Fer74, Fin08, GM90, GM92, Hig91, LIW18, MNS74, Müh81, NBSV08, NBHYV09, NBBKV10, NBNTGV11, NBNTG12, NB16, NTNBV14, SSZ83, Sch69, YNBV11]. **Heterogeneous** [BL70]. **High** [VIT21, AIN12, CN17, LIW18]. **high-order** [LIW18]. **High-Speed** [VIT21]. **Higher** [BF74, Lia90]. **Higher-Order** [BF74]. **Hilbert** [Maj84, AR12, BB87, Lim07]. **Hildesheim** [Bir80b]. **Historical** [Hoo75]. **History** [Bir65a, Bir78a, MHR80, Nas90, Ven02]. **hold** [Bir75g]. **Hölder** [Bir34u]. **homenaje** [Bir62b]. **homogène** [BK54a]. **homogeneous** [Bir54b, BK62, BK58]. **horizons** [SA85]. **Hotel** [BW61, BBL62]. **House** [Bir76d, Bir97]. **HP** [Bir80a]. **HSP** [Amr94]. **HSP-Theorem** [Amr94]. **hulls** [MOSZ02]. **hybrid** [Gai17, MRYS20]. **Hydrodynamic** [BBL62, BL62b, BBL64, BD75a, BD75b]. **Hydrodynamical** [Bir48a, BL62a]. **Hydrodynamics** [Bir50b, Bir55b, Bir60b, Bir63a, Bir16, Tau63c]. **Hydrodynamique** [Bir55a]. **Hyperbolic** [BD04, Rou04]. **Hypersonic** [BEM66].

I. [Ano75]. **Ideals** [Bir34f, Bir34g, Bir34n, Bir35j]. **identities** [Bir34o]. **II** [Gum66, AIN12, Bir71b, Bir35j, Bir36d, BPS52, BK54d, Bir65d, BS84, Bir84b, FGP10b, MB71, Tau61b, dBS01, Wei87]. **III** [Bir48c, Tau63a]. **Impact** [Bir72c]. **Implicit** [BV57a, BV59b, BVY62]. **inclusion** [Bir36m, Bir37i]. **Independence** [KLR19]. **Induced** [Bir52a, Bir53b, Bir54c]. **Industrial** [BBAS69, BV70b, BH71, Bir80a]. **inequality** [BK73]. **Infinite** [SL15, KL19, PMW19]. **Infinite-Dimensional** [SL15]. **initial** [DAE13]. **initial-value** [DAE13]. **Instability** [Bir54e, Bir56b, Bir54d, BBL62, Bir62a, BBL64]. **Integrability** [Rou04]. **integral** [Bir46b, BK54c, BK54d]. **integrand** [CHS03]. **Integration** [Bir34a, Bir35f, Bir36e, Bir37g, Bir35h, Bir37h, Bir83c]. **integrators** [KWM13, LIW18, WHWW21]. **Integro** [BK66c]. **Integro-differential** [BK66c]. **interpolants** [BCG74, BCGVS11]. **Interpolation** [AS69, BG60, BP67, Bir73b, Boj93, CJMT74, DLR82, GV96, Hig91, LZ71, Lor92c, MNS74, RES01, Sch69, SP68, AB12, ACD18, BBG73, BdB64, BdB65, BSV68, Bir69e, Bir71f, Bir72d, Bir79a, BDS00, CG00, CSV80, CLLX11, CL15, DAE13, DD16b, FSZ85, Fin08, GM90, GM92, Jia95, JWH16, LCXL11, Lor82, Lor92a, Lor92b, MT18, Müh81, RS81, SSZ83, WZD09, XLD23, Zhu97, dS00, dDS00, dBS01, dBD05]. **interval** [Bir62b]. **Introduction** [Bir75b, Bir75c, Bir75d, Bir75e, Bir75f]. **invariant** [Bir67c]. **invariants** [Lut79]. **inverse** [CRUV00]. **involving** [Fin08, Ric11]. **irregular** [MRYS20]. **Irrisolto** [Ven02]. **Island** [Gum66]. **isomorphic** [Bir36f, Bir36g]. **isomorphism** [Tin86]. **Isoperimetric** [BH35c, BH35d]. **isotrope** [BK54a]. **Isotropic** [BG79]. **Italian** [Ven02]. **Iterative** [Fra50, HY81,

KRYG82, Var62, You50, You54]. **ITPACK** [BL90a, KRYG82]. **IV** [Tau62]. **ix** [Bir80b, Ric11].

J [BV59a, Bir69c, Bir80a, MB73]. **J.** [Bir79e]. **J.-C** [MB73]. **Jacobson** [Bog85]. **James** [AR12, AR15, AGK+21, AV22, BBK22, CP11, CP13, KL19, MZ17, PSG16, PSM18, PMW19, SPH15]. **James-orthogonality** [CP13]. **January** [BS84, Mac98, Var98]. **Jentzsch** [Bir57]. **Jets** [BS64, BZ57, Bir58a]. **John** [Bir80a, G.68, Tau61a, Tau61b, Tau63a, Tau62, Tau63b, Tau63c, Zun02, Bir83a, Bir83b, Bir97]. **Johnson** [Nis79]. **Jordan** [Bir34u, BW49]. **July** [Sch81]. **June** [Sch81].

Kac [Gum66]. **kaverny** [BS64]. **Kergin** [Lor92b]. **kind** [Jia95]. **Kinematics** [BK62, BK58]. **Kinetics** [Bir66]. **Klein** [BB88, LIW18]. **knots** [Boj93]. **Konformer** [Lie18]. **Kutta** [Hig91, NTNBV14].

L [Anoxx, Bir69c, Bir38b]. **LA-1862** [Bir56b]. **Laboratories** [Gar65]. **Lagrange** [CN17]. **Lagrange-collocation** [CN17]. **Lagrangian** [BL62b]. **Laminar** [Bir54e]. **Lane** [Bog71, Bog85, Mew67]. **Large** [KRYG82, Bir36f]. **Lattice** [Abb70, Bir40a, Bir42b, Bir43b, Bir45, Bir48b, BP56, Bir61b, Bir63b, Bir67a, BHC+70, Bir79b, Bir79c, Bir79d, Bir34b, Bir34n, Bir35j, Bir35k, Bir46g, Bir52c, Bir58b, BB85b, Bir84a, Bir81a]. **Lattice-ordered** [Bir42b, Bir45, BP56, Bir63b]. **Lattices** [Bir34h, Bir38c, Bir61c, Bir70, Bir95, BB84, BB85a, BB94, Bir35c, Bir36c, Bir40b, BK47, BF48, Sch11]. **laws** [Bir64a]. **Leaders** [Bir77d]. **Leibniz** [CIL07]. **lemma** [De 03]. **Lewis** [BF88, BB05]. **Lewis-Type** [BB05]. **Liapunov** [BK73]. **libration** [She08]. **Lie** [Bau98, Bir35n, Bir36f, Bir36g, Bir36h, Bir37j, Bir45, BW49, Bir50a]. **like** [BB46]. **limit** [Bir35g]. **limitation** [Bir67b]. **linéaire** [MB73]. **lineal** [Bir46e]. **Linear** [Bir34i, Bir36h, BK67, Bir67c, KRYG82, You53, Bir34k, Bir35c, Bir35k, Bir35m, Bir36b, Bir36f, Bir36g, Bir46a, Bir46e, BD56, BK65, Bir65b, BK66b, BK69, BK70, BK71, BG74, BK75, Bir80a, BL90b, PSG16, PSM18, QQ23, Bir35b]. **linearen** [Bir46a]. **linearization** [XLD23]. **Lined** [BMPT48]. **LINPACK** [Bir80a]. **Liouville** [BR60]. **Load** [CLL01, CLY06]. **Local** [Bir67d]. **locally** [BCG74]. **logarithm** [Reu86]. **Logic** [Amr94, Bir50b, Bir55b, Bir60b, Ven02, BvN36, Bir63a, Tau61a]. **Logica** [Ven02]. **logico** [Hoo75]. **logico-algebraic** [Hoo75]. **Logics** [Sun91, Gai17]. **London** [Bir64b, Bir83a, Bir83b]. **long** [LIW18]. **long-time** [LIW18]. **Lorentzian** [Lim07]. **Lorenz** [Lim07]. **Lovelock** [Zeg05]. **Lowell** [Bir65a]. **Lubos** [Bir74b]. **Lubrication** [BH63]. **Lusztig** [LY13].

M [Bir77c, Gum66]. **M.I.T** [Bir83a, Bir83b]. **Mac** [Bog71, Bog85, Mew67]. **Macrae** [Bir97]. **magnet** [KJ06]. **magnetic** [Hor78]. **manifolds** [ACD18]. **many** [MS92]. **many-sorted** [MS92]. **mapping** [BYZ53]. **mappings** [Lie18]. **Maps** [LS93, BGT95, ST84]. **March** [BH71]. **masonry** [Ric11]. **Mass** [Ano77, Bir83a, Bir83b, GG75, Bir52a, Bir53b, BL80, BBL84]. **Matematika** [Bir77a]. **materials** [BL62a]. **Math** [Bir74c]. **Mathematical** [BBAS69, BL59, BW61, BBL62, Bir65a, BV70b, BH71, Bir72c, Bir73c, Cor96, Gum66, Sec62, Bir60c, Bir85, Bir86, Bir88b, Tar77]. **mathematician** [Bir77c]. **Mathematics** [Bir71a, Bir71b, Bir48c, BL59, BW61, BBL62, Bir69d, Bir75g, Bir76e, Bir77b, Bir77d, Bir80a, BS84, Bir89, Cut63, How62, Sax96, Sec62, BBAS69, Bir61c, BV70b, BH71, Bir76a, Tar77, You97, GG75]. **Mathématiques** [Bir79e]. **Matrices**

[AK01, BV57b, BV58, BV59a, CS80, RGZ18, You53, BS82, Bir37j, Bir75h, BG79, BBC88, Bru82, DDCY17, DD16a, DD19, DU16, DKPU18, JDM60, Nis79, Shi22]. **Matrix** [LS93, Var62, CC03]. **Matter** [BL62b]. **maximal** [BBK22, Mil17]. **Maximally** [KLR19]. **maximum** [BW54b]. **Maxwell** [Hor78, SL16]. **McCoy** [RR21]. **mean** [Bir39b]. **meaning** [Bir37d]. **Means** [Bir50c]. **mechanical** [BC06]. **Mechanics** [BS84, Gum66, Tau61a, BvN36, FGK$^+$63, Hoo75]. **mediante** [Bir46b]. **meeting** [Tar77]. **Mehrtens** [Bir80b, Bir80e]. **memoriam** [Var98]. **Mendelsohn** [Nis79]. **meromorphic** [Lut79]. **Merzbach** [Ano77, GG75, Kop75]. **meshes** [MRYS20]. **Meteorology** [Tau63c]. **Method** [RES01, Sun91, You53, DAE13, RPB23]. **Methods** [BV57a, BF71, BF74, BD76, HY81, KRYG82, MNS74, NBNTG12, Sou46, SL15, BYZ53, BV59b, BVY62, Bir65c, Bir80a, BGL90, CN17, FGP10a, FGP10b, JWH16, MT18, NBNTGV11, NB16, NTNBV14, SL16, XLD23, You50, You54]. **Metric** [Bir41, Bir44a, Bir33a, Bir35m, Lim07, BK62]. **metrics** [KL88]. **Mezard** [MB73]. **Michell** [BK54c, BK54d]. **Michigan** [Gar65]. **Mills** [BS93]. **Milne** [Boy70]. **Minimal** [Fer74]. **Minimax** [BH35a, BH35b]. **minimization** [Bir80a]. **Mises** [Gum66, Bir83e, FGK$^+$63]. **Mixing** [Bir54e]. **mobile** [SW65]. **Möbius** [dDS00]. **modèle** [BK54a]. **modeling** [BE63]. **Models** [BL62b, Bir88b]. **Modern** [BM41, BM53, BM65a, BM65b, BB70a, BB70b, Bir76h, Bir76g, BM77, BL97, Cor96, Klo72, Bir71e, Bir74b, BM92]. **modular** [Bir35e]. **modules** [AR12]. **Molecular** [BL62b]. **Moler** [Bir80a]. **moments** [Bir67d]. **monogenic** [Bir34k]. **monoids** [Bra60]. **monomial** [CL15]. **monopole** [Hor78]. **monotone** [Bir76d]. **Monterey** [BS84]. **Monthly** [Bir74c]. **Moore** [Bir36i, Bir37e]. **Moore-Smith** [Bir36i]. **Morris** [Anoxx]. **motion** [SW65]. **Motors** [Gar65]. **mouvement** [SW65]. **Moyennes** [Bir50c]. **multi** [SL16]. **multi-symplectic** [SL16]. **multigroup** [Bir75a]. **multiple** [GZ08]. **multiplicative** [Bir62c, Bir65d]. **Multistep** [MNS74, NB16]. **Multistochastic** [CLN14]. **Multivariate** [AB12, BCG74, Lor92c, Bir79a, CLLX11, CL15, LCXL11, WZD09]. **mutual** [AGK$^+$21].

N [Bir69c]. **Nash** [Bir80a]. **Nathan** [Bog85]. **nation** [Tar77]. **Natural** [BH35c, BH35d]. **Naval** [BS84]. **Negative** [BV57b]. **nested** [BG73]. **network** [BD56]. **networks** [Bir63d, BK66a]. **Neumann** [Bir83a, Bir83b, Bew71, Bir58b, CLL01, CLY06, CQCZ19, CLN14, DKWL20, DU16, DKPU18, DC18, LLL86, Tau61a, Tau61b, Tau63a, Tau62, Tau63b, Tau63c, Ven02, YZLH17, Zun02, Bir97]. **Neutral** [Bir40b]. **neutron** [Bir63c]. **Newman** [BB94]. **Newton** [WZD09]. **Newtonian** [BB49]. **nilpotent** [Bir36h]. **Nilson** [Bir69c]. **nineth** [Tar77]. **Ninth** [BL59]. **NM** [Sch81]. **no** [Bir36f, Bir36g, BV59a]. **Nodes** [Sch69]. **Noether** [SZ15]. **Non** [Bir35h, BD56, BV57b, BF88, dS00]. **Non-commutative** [Bir35h]. **Non-linear** [BD56]. **Non-Negative** [BV57b]. **non-uniformly** [dS00]. **Nonlinear** [BV70a, Bir83c, G.68, Bir63d, KJ06, LIW18]. **Nonnegative** [BV58, BV59a]. **nonuniformly** [dBS01, dBD05]. **Norbert** [Bir83a, Bir83b]. **norm** [SPH15]. **Normal** [Rou04, AWD86, AW89, BGT95, CRUV00, CHS03, FGP10a, FGP10b, Kal93, Nik96, She08]. **normalization** [BHLV03]. **Norman** [Bir97]. **normed** [Bir34p]. **North** [BV70b]. **Note** [Aus67, Bir34j, BB49, BK54b, BW54b, Bir54d, Bir65b, Bir76f, Bir36j, Bir36k]. **Notes** [BBC88, Bru82, DU16, DKPU18]. **November** [Mac98, Var98]. **Novy** [Bir74b]. **Nuclear** [Cut63, How62, Bir60c, BW61].

Number [BH71, KLR19]. **numbers** [Bir75h, Reu86]. **Numerical** [BY50, BYZ53, Bir66, BL66, Bir69a, BV70b, BV70a, Bir71d, Bir73d, BD75a, BD75b, BD76, Bir78a, Bir83d, Bir84c, Bir84b, BL84, PR55, SL15, Tau63b, BBK22, Bir80a, Bir85, Bir86, Bör89, CP11, DAE13, DR56, Sho53, G.68].

Obrechkoff [YNBV11, NBSV08]. **observaciones** [Bir46e]. **observations** [Bir46e]. **obstacles** [BGZ54]. **ocean** [Bir85, Bir86]. **October** [BV70a]. **ODE** [BNBV10, NBSV08, NBHYV09, NBBKV10]. **ODEs** [NB16]. **Office** [BS84]. **Offprints** [Bir37f]. **One** [NBHYV09, AW89, BSV68, NBBKV10]. **one-dimensional** [AW89]. **One-step** [NBHYV09, NBBKV10]. **only** [Fin08]. **Opening** [Ano75]. **operation** [BK47]. **Operational** [Bir34o]. **Operator** [MZ17, SPH15]. **Operators** [AR15, AGK+21, Tau63a, Bir37h, Bir43a, Bir65b, DD16b, GS10, KL19, PSG16, PSM18, PMW19, Sho53, Tau61b]. **Optimal** [BP71, BG74]. **Orbit** [BL59, BK76b]. **orbits** [BC06, KdC05]. **Order** [Bir37i, BF74, Bir33c, Bir34m, BH36, BK66b, BK67, BK69, BK75, Bir88a, CN17, LIW18, NBSV08, NBHYV09, NBBKV10, NTNBV14, YNBV11]. **Ordered** [Bir82b, Bir36m, Bir42b, Bir45, BP56, Bir63b]. **Ordinary** [BR62, BR69, BR78, BR89, Lan63, Ant63]. **Origins** [Bir74b]. **Orthogonality** [Bir34p, Bir35m, MZ17, AR12, AR15, AGK+21, AV22, BBK22, CP11, CP13, KL19, PSG16, PSM18, PMW19, SPH15]. **oscillation** [AIN12]. **oscillator** [AWD86]. **Other** [Tau62, ACD18].

P [Cut63, How62, Bir74b]. **Pa** [BV70a]. **Package** [KRYG82]. **Pál** [dBD05]. **Pál-type** [dBD05]. **Panstochastic** [AK01]. **Paper** [Gla69, Bir34j, BBC88]. **Papers** [Gum66, RO87, FGK+63, Tar77]. **Parabolic** [PR55]. **Paradoxes** [Bir48a]. **Part** [FGP10a, FGP10b]. **Partial** [AS69, Bir48c, Bir54a, BH63, Bir65c, Fra50, BM58, BSV68, You50, You54]. **Partially** [Bir36m]. **partie** [MB73]. **past** [BGZ54]. **Patterns** [BC49]. **PDEs** [BB05, FGP10a, FGP10b]. **Peano** [BB84]. **perfectly** [Bir33a]. **period** [BMT03]. **Periodic** [Tau61b, BC06, BP71, Boj93, KdC05]. **perturbed** [BDS00]. **Peter** [Bir80a, Bir80d]. **Ph** [Gum66]. **phase** [Bir78b]. **phenomena** [Maj84]. **Philadelphia** [BV70a, Bir80a]. **Philosophy** [Bir79f]. **physical** [Bir88b, Ric11]. **Physics** [Sou46, BV70b]. **Piecewise** [BdB65, BdBSW66, BSV68, Bir69e, Bir72d]. **Pierce** [Mar92]. **pipes** [Bir64a]. **plane** [BGZ54, BC57]. **PM** [DKWL20]. **PM-Compact** [DKWL20]. **pocket** [Bir80a]. **Poincaré** [Bar67, Bau98, BC06, Bir79f, BTL99, CIL07, De 03, LY13, RR21, TTT99, Reu86, Roq11]. **Point** [RES01, Bar67, BG74]. **points** [Bir34o, She08, Shi22, dBD05]. **Poised** [AS69]. **polygons** [Bir69e, Bir72d]. **Polynomial** [BCGVS11, BdB65, Bir71f, CG00, MRYS20, Sho53]. **Polynomials** [BdBSW66, BF67, Lor82, Zhu97]. **Polytope** [KLR19, RGZ18, CdFM08, CdFM09, CM10, Mar06, RMKPZ22]. **polytopes** [ACDM14, Fer15, kJ16]. **Popper** [Ven02]. **poset** [BB85b]. **Positive** [BK70, BK71, LS93, You53, BK65, Bir65b, BK66c, BK67, BK69, BK75, BK76b, CC03]. **Positivity** [Bir61d]. **possibly** [MS92]. **Postulates** [Bir35n, BB46]. **Potential** [Bir61a]. **potentials** [Bir54c]. **pour** [SW65]. **power** [DD19]. **Pp** [GG75, Bir77c, Bir80a, Bir80b]. **pp.** [Anoxx, Bir64b, Bir80a, G.68]. **Prager** [Gum66]. **Prague** [Bir74b]. **Preconditioning** [MT18]. **Preface** [BG75b]. **Presentations** [Lan63].

presented [Tar77]. **Preserving** [NBNTG12, SL15, AR15, AGK+21, NBNTGV11, NTNBV14, ST84, SL16, WHWW21]. **Press** [Ano77, Anoxx, Bir64b, Bir83a, Bir83b, GG75]. **prime** [Bir34m, DD16a, DD19]. **prime-order** [Bir34m]. **prime-power** [DD19]. **primitive** [Bir62c, Bir65d]. **Principle** [BH35a, BH35b, Bir63d]. **Principles** [BD04]. **priority** [Zun02]. **Priver** [Gla69]. **probabilities** [Bir38b]. **Probability** [Gum66]. **Problem** [BS84, GV96, RES01, Sch81, SW08, Wei87, Bra60, CRUV00, GS10, KJ06, LCXL11, Maj84, She08, SW65]. **Problème** [SW65]. **Problems** [Ann33, AR34, AS69, Bir34q, BRW35, BV65, BV70a, Bir71c, BD75a, Bir81b, BL84, CB34, Dun35, DS35, Esc34, ERG+35, GW35, GL35, JS35, ØB37, RK34, Sch69, SUB12, Bir52c, BD56, Bir60c, Bir64c, Bir64d, BF70, BV70b, Bir72a, BBK73, BG74, BD75b, Bir83f, Bir85, Bir86, BL90a, BL90b, CN17, CL15, DAE13, DR56, FSZ85, GM90, Ric11, RPB23, Sho53]. **Proceedings** [BBAS69, BL59, BS84, Gar65, BW61, BV70b, BBL62, BH71, Sch81, Cut63, How62, Sec62]. **processes** [Bir62c, Bir65d]. **Product** [Bir37g, Bir83c]. **Program** [Kal93, BGT95, CRUV00, ST84]. **Programm** [BB88]. **Programs** [Amr94]. **projective** [Bir35d, Lim07]. **projektive** [Bir34c]. **promise** [Bir75g]. **Proof** [Bar67, Bon88, LLL86, Nis79, SW10, TTT99]. **proper** [CLLX11]. **Properties** [Fer74, Lor92a]. **Providence** [Gum66]. **Providing** [CLY06]. **pseudospectral** [RPB23]. **psikhologiya** [Bir77a]. **Psychology** [Bir69d, Bir76a, Bir71a, Bir71b, Bir76e]. **publication** [BM92]. **Publications** [Lan63]. **Putnam** [Bir65a].

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R [Bir80a]. **R.** [BBC88]. **radical** [Bir43a]. **Random** [Bir97]. **range** [BBK22]. **ranges** [CP11]. **Rank** [CJMT74]. **rapid** [AIN12]. **rate** [CLY06]. **Rates** [Fra50]. **rational** [XLD23]. **Rayleigh** [BdBSW66, BF67]. **Rays** [RGZ18]. **Reactor** [BV57b, BV58, BV59a, Bir59, Bir63c, Bir66, BF71, Cut63, How62, Bir60c, BW61, Bir90]. **reality** [Bir88b]. **Reconstruction** [DDH18]. **Recoverable** [KLR19]. **refinement** [Nis79]. **Regular** [BM58]. **régularisation** [SW65]. **regularization** [SW65]. **regularized** [Bör89]. **Reidel** [Bir79f]. **related** [AV22, BL66, BG68, Shi22]. **relation** [AV22, Bir36m, Bir37i]. **relations** [Bir34c, Bir34h, Bir35d]. **Relaxation** [Sou46]. **Remarks** [Bir48e, CJMT74, Ano75, Bir46a, kJ16]. **renormalization** [GKM04, GZ08]. **report** [Bir75a, Bir56b]. **Representability** [Bir37j, Bir36h]. **Representation** [BW49, Bir90]. **Representations** [BF48, Reu86]. **Research** [BS84, Gar65, BL90a]. **resequencing** [CLL01]. **reshetok** [Bir84a, Bir81a]. **Resistance** [BKKK54, BK54d]. **restreint** [SW65]. **Restricted** [SW65]. **result** [BF88]. **Réticulés** [Bir49a]. **Reversibility** [Bir46c]. **Review** [Ano77, Anoxx, Ant63, Bir64b, Bir69c, Bir74b, Bir77c, Bir78a, Bir79d, Bir79e, Bir79f, Bir80a, Bir80b, Bir80d, Bir80e, Bir83a, Bir83b, Bir97, Cut63, G.68, GG75, Gum66, How62, Kop75, Sec62, Wei87]. **Reviews** [Bog71, Bog85, Klo72, Mew67]. **Revisited** [Sun91, VIT21, BDS00]. **Rhode** [Gum66]. **Riccati** [LL07]. **Richard**

[Bir64b, Gum66, Bir83e, FGK$^+$63]. **Richardson** [You53]. **Riemann** [Bir79f, Maj84]. **Rings** [Bir37k, Tau63a, Bir34f, Bir34g, BP56]. **Rise** [Bir76h, Bir76g, Cor96]. **Rising** [BC57]. **Ritz** [BdBSW66, BF67]. **Roberto** [Bir79f]. **Robust** [RGZ18]. **role** [Bir71e, Bir88a, Sch11]. **roll** [BF59]. **roots** [BDS00, CSV80, FSZ85, RS81, SSZ83, dS00, dDS00, dBS01]. **Rota** [Ant63, Lan63]. **Rott** [SUB12]. **Rubinoff** [Anoxx]. **Runge** [Hig91, NTNBV14]. **Russian** [BS64, Bir84a, Bir81a].

S [Bir77c, Gum66]. **Santa** [Sch81]. **Saunders** [Bog85, Bog71, Mew67]. **Scalar** [SUB12, SA85]. **scalar-tetradic** [SA85]. **scales** [SZ15]. **scaling** [BMT03]. **scattered** [ACD18, DD16b]. **Scheduling** [DC18, VIT21]. **scheme** [QQ23]. **schemes** [Bir76d, MRYS20]. **Schoenstadt** [Wei87]. **Schröder** [Sch11]. **Schrödinger** [KJ06]. **Science** [Bir75g, Sou46]. **Scientific** [Nas90]. **Scribners** [Bir77c]. **second** [BK67]. **second-order** [BK67]. **seen** [Bir80c]. **Selected** [FGK$^+$63, RO87, Gum66]. **self** [Sin86]. **self-creation** [Sin86]. **Semi** [Rou04, Bir39a, Bir62c, Bir65d]. **Semi-classical** [Rou04]. **semi-groups** [Bir39a]. **semi-primitive** [Bir62c, Bir65d]. **semigroup** [Bew71]. **semigroups** [Bir64d]. **semilinear** [FGP10a, FGP10b]. **separable** [Bir33a]. **series** [AIN12, Bir34v, ST84]. **services** [CLY06]. **Set** [BV65, Bir64d, BBK73]. **Sets** [Tau61a, Bir34o, Bir34s, Bir34t, Bir36m, Bir37k, BF48, Bir62b, Bir82b, CP11, CP13, MS92]. **several** [Zhu97]. **sheets** [BF59]. **Shepard** [DD16b]. **Ships** [BKKK54, BK54d]. **shock** [BW54b]. **SIAM** [BV59a, BV70a]. **Sign** [Fer74]. **Similarity** [Bir69b, Bir69f, Bir78b]. **Similitude** [Bir50b, Bir55b, Bir60b, Bir63a]. **simple** [SW10]. **simply** [Bir36g, BYZ51]. **Singularities** [Bir71c, Bir72a, SA85]. **size** [NBSV08]. **skeleton** [ACDM14, Fer15]. **Skew** [RR21]. **Skillful** [Bir75g]. **sledy** [BS64]. **Smith** [Bir36i, Bir37e]. **Smooth** [BBG73, BG60, BYZ51]. **smoothing** [BP71]. **smoothness** [PSG16]. **so-called** [TTT99]. **Sobre** [Bir46d, Bir46e]. **Society** [BBAS69, BL59, BW61, BBL62, BV70b, BH71, Bir80a, Gum66, Sec62]. **Solution** [Ann33, Bir34q, Bir66, BK66a, Bir71d, BD75a, BL84, Esc34, PR55, SW08, BL66, Bir69a, BV70b, BD75b, Bör89, DAE13, DR56, Ric11, Sho53]. **Solutions** [Ann33, AR34, Bir34q, BRW35, BV70a, CB34, Dun35, DS35, Esc34, ERG$^+$35, G.68, GW35, GL35, JS35, ØB37, RK34, BK66b, BAS69, BAS70, Hor78, MB73]. **solvability** [GM90]. **solver** [BNBV10, NBSV08, NBHYV09, NBBKV10, YNBV11]. **Solvers** [BS84, Sch81, Wei87, NB16]. **Solving** [BD76, Bir81b, Bir83f, KRYG82, RES01, You53, Bir75a, BGL90, BL90a, BL90b, LIW18, RPB23, You50, You54]. **Some** [BB05, Bir52c, BK54c, Bir60c, Bir77d, Bir82c, Bir85, Bir86, BL90b, FSZ85, Gla69, kJ16, Mar06, BDS00]. **Sons** [Bir80a, G.68]. **sorted** [MS92]. **Sound** [Bir87, Bir88b]. **Soundness** [MS92]. **Source** [Bir73e, GG75, Kop75, Ano77, BG74]. **Space** [BM62, Bir34a, Bir34i, Bir35f, CLLX11, DR56, PSM18, SW65]. **Spaces** [RGZ18, BS82, Bir33a, Bir34p, Bir35b, Bir35m, Bir36b, Bir38b, KL19, PMW19, Rut98]. **Spanish** [Bir46e]. **Sparse** [KRYG82, VIT21]. **spectral** [MT18]. **Speed** [VIT21]. **sphere** [ACD18]. **Spherical** [BMH58, Bir56a]. **spline** [BdB64, Bir67d]. **Splines** [Bir69c, Fer74, Boj93]. **splitting** [FGP10a, FGP10b]. **sponsored** [BS84]. **Stability** [Bir56a, NBNTG12, Roq11, KdC05, NBNTGV11, NTNBV14, She08]. **Stable** [CL15]. **Stage** [NBNTG12, BNBV10, NBSV08, NBHYV09, NBBKV10, NBNTGV11, NB16, NTNBV14, YNBV11]. **Statistically** [BBK73]. **Statistics** [Gum66].

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Taub [KL88, Lia90]. **Taylor** [NBHYV09, NBBKV10, Bir54d, Bir54e, Bir56b, Bir62a, BNBV10]. **technique** [DAE13]. **techniques** [Bir73d]. **telegraph** [BL66]. **Tensors** [CLN14, CQCZ19]. **Teoriya** [Bir84a, Bir81a]. **term** [Fin08]. **terms** [SL16]. **ternary** [BK47]. **Terracini** [Bir62b]. **test** [BG79]. **tetradic** [SA85]. **th** [CSV80, RS81]. **Their** [Bir69c, Bir38c, Bir95, LIW18]. **Theorem** [AK01, Aus67, BB05, CS80, CLN14, LS93, Reu86, Bau98, BdPK07, BS82, Bir33d, Bir34u, Bir39a, Bir39b, Bir57, Bon88, BS93, CIL07, CQCZ19, CHS03, DDCY17, DD16a, DD19, Gol01, Hor78, LLL86, MOSZ02, Nis79, SA85, SW10, Shi22, Sin86, SZ15, TTT99, Zeg05, Amr94]. **théorèmes** [MB71]. **Theorems** [Rut98, AB39, AB40, Bar67, Bew71, KL88, Lia90, Tin86, Zun02]. **Theoretical** [Sou46]. **Théorie** [Bir49c]. **Theorist** [Sax96]. **Theory** [Abb70, Bir37b, Bir40a, Bir48b, BK54d, Bir61b, Bir67a, Bir69c, BHC$^+$70, BH71, Bir79b, Bir79c, Tau61a, Tau61b, Tau63b, BBAS69, Bir84a, Bir34n, Bir35j, Bir35k, Bir46c, Bir48d, Bir49b, Bir52b, Bir52c, Bir58b, Bir59, Bir60c, BW61, Bir63c, Bir81a, Bir82a, McE93, SA85, Tau63c, BL59, Bir79d, Cut63, How62]. **thermal** [BK66a]. **Third** [BK69, BK75]. **third-order** [BK75]. **Thirteenth** [BBL62]. **Thomas** [Klo72]. **three** [BNBV10, DR56, SW65, Bir46a, Bir46e]. **three-dimensional** [SW65]. **three-stage** [BNBV10]. **Time** [BM62, NBNTG12, LIW18, NTNBV14, SZ15, WHWW21, NBNTGV11]. **Time-Discretization** [NBNTG12, NTNBV14, NBNTGV11]. **Tome** [MB70, MB71]. **tools** [BL90a]. **Topics** [Tau62]. **topological** [Bir36j, Bir36k, Bir76f]. **topologies** [Bir35i, Bir36l]. **Topology** [RO87, Bir34s, Bir34t, Bir36i, Bir37e, Bir62b]. **Torretti** [Bir79f]. **trains** [BK52]. **trajectories** [Roq11]. **Transfinite**

[Bir34u, Bir34v]. **transform** [dDS00]. **transformation** [Bir34s, Bir34t, BYZ51]. **transformation-sets** [Bir34s, Bir34t]. **transformations** [BK54c, Bir67c]. **Transition** [BEM66]. **transitive** [Bir33d]. **transitivity** [BK62]. **Transport** [BBAS69, Bir69f, Bir59, Bir63c, BAS69, Bir69b, BAS70]. **Treatise** [Sou46]. **Treatments** [Fra50]. **treillis** [Bir49c]. **Trends** [Abb70, BHC$^+$70, Bir74a, Bir72b, Bir73a, Bir74c, Bir74d, Bir76b, Bir76c]. **Tres** [Bir46e]. **triangles** [BBG73, Bir73b]. **triangular** [BM74, She08]. **triangulated** [Bir72d]. **tribute** [Tar77]. **Tricubic** [Bir71f]. **tridiagonal** [CM10, kJ16]. **trigonometric** [BF67, Jia95]. **trois** [SW65]. **Tschebyscheff** [Sho53]. **Turbulence** [BEM66, Bir54b, BK54a, BK62, BK58]. **Twentieth** [MHR80]. **Two** [BB94, Bir75h, SUB12, Bir37f, Bir46c, BSV68, Bir78b, DR56]. **Two-dimensional** [SUB12, Bir46c]. **two-phase** [Bir78b]. **Type** [BB05, BN90, SW08, BF88, BK66c, BK67, BTL99, DAE13, Dyn84, Jet82, Jia95, Rut98, Sin86, Tin86, You50, You54, dBD05].

U [GG75]. **U.S.A.** [Bir80c]. **Ulam** [Bir77c]. **Undergraduate** [Bir72c]. **Uniformly** [Bir62c, Bir65d, BK76b, dS00]. **unions** [Bir44b]. **Uniqueness** [Jet87, Fin08]. **Unistochastic** [RGZ18]. **unitary** [DDCY17, DD16a, DD19]. **unity** [BDS00, CSV80, FSZ85, RS81, SSZ83, dS00, dDS00, dBS01]. **univariate** [BCG74, XLD23]. **Universal** [Bir46f, BL74, Bir44b, Bir76f, Bir82c, RPB23]. **Universe** [Boy70]. **University** [Ano77, BL59, GG75]. **Unsolved** [Ven02]. **USA** [BBL62]. **Use** [Sho53]. **User** [Bir80a]. **Using** [Hig91, JWH16, MRYS20]. **Uta** [Ano77, Kop75].

V [Tau63b]. **Vaillant** [MB73]. **value** [CN17, DAE13, RPB23, Sho53]. **valued** [Bir34i]. **values** [Bir34a, Bir35f, Fin08, GZ08]. **Vandermonde** [GM92]. **Variable** [YNBV11, Bir53b, NB16]. **variable-order** [YNBV11]. **Variable-step** [YNBV11]. **variables** [BSV68, DR56, Zhu97]. **Variational** [BD04, KWM13, Bir63d, CHS03, WHWW21]. **Variations** [BH35a, BH35c, BH35d, BH35b]. **variety** [Gol01]. **Vector** [CS80, BS82, Bir34p]. **verbandsteorie** [Bir80b]. **Verbandstheorie** [Bir80e]. **Verlag** [Bir80b]. **version** [CHS03]. **vertex** [Fer15]. **VI** [Tau63c]. **via** [Lor92b, MT18, RES01]. **viscous** [Bir64c]. **vol** [Cut63, How62, Hoo75]. **Vol.** [FGK$^+$63]. **Volume** [Anoxx, Gum66, Tau61a, Tau61b, Tau63a, Tau62, Tau63b, Tau63c]. **vortex** [Bir52b, Bir53a, BF59]. **VSVO** [BNBV10].

W [Bir80a, Bog85, Gum66]. **Wakes** [BZ57, Bir58a, BEM66, BS64]. **Wall** [BPS50, BPS52]. **Walsh** [Bir69c, SSZ83]. **Warren** [Gar65]. **Wave** [BKKK54, BD76, BK52, BK54d]. **waves** [Bir87, Bir88b]. **weighted** [Mil17]. **Weil** [MB73]. **Well** [Bir64d, BV65, JWH16, AW89, BBK73]. **Well-conditioned** [JWH16]. **Well-Set** [BV65, Bir64d, BBK73]. **Wiener** [Bir83a, Bir83b]. **Wigner** [Cut63, How62, Sec62]. **Wiley** [Bir80a, G.68]. **William** [Bir65a]. **Witt** [Bau98, BTL99, CIL07, De 03, LY13, Reu86, RR21, TTT99]. **Works** [Tau61a, Tau61b, Tau63a, Tau62, Tau63b, Tau63c].

x [Bir80a, G.68]. **XI** [Cut63, How62]. **xii** [GG75]. **xvi** [Bir64b].

Yang [BS93]. **years** [Bir83e]. **York** [Anoxx, BBAS69, BL59, BBL62, Bir64b, BH71, Bir77c, Bir80a, Bir97, G.68]. **Yorker** [BW61, BBL62]. **Young**

[MCS11, Let76, Mil17].

zeta [GZ08]. **zur** [Bir46a].

References

Alaoglu:1939:GET

[AB39] L. Alaoglu and G. Birkhoff. General ergodic theorems. *Proceedings of the National Academy of Sciences of the United States of America*, 25 (12):628–630, December 1, 1939. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic).

Alaoglu:1940:GET

[AB40] L. Alaoglu and G. Birkhoff. General ergodic theorems. *Annals of Mathematics (2)*, 41(2): 293–309, April 1940. CODEN ANMAAH. ISSN 0003-486x (print), 1939-8980 (electronic).

Allasia:2012:MHB

[AB12] Giampietro Allasia and Cesare Bracco. Multivariate Hermite–Birkhoff interpolation by a class of cardinal basis functions. *Applied Mathematics and Computation*, 218(18):9248–9260, May 15, 2012. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0096300312002330`.

Abbott:1970:TLT

[Abb70] J. C. (James Crawford) Abbott, editor. *Trends in Lattice Theory*. Van Nostrand Reinhold, New York, NY, USA, 1970. ISBN 0-442-00215-7. LCCN QA171.5T74 1970. Written versions of four talks delivered to a symposium on trends in lattice theory held at the United States Naval Academy in May of 1966.

Allasia:2018:HBI

[ACD18] Giampietro Allasia, Roberto Cavoretto, and Alessandra De Rossi. Hermite–Birkhoff interpolation on scattered data on the sphere and other manifolds. *Applied Mathematics and Computation*, 318(??):35–50, February 1, 2018. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0096300317303065`.

Abreu:2014:SAB

[ACDM14] Nair Abreu, Liliana Costa, Geir Dahl, and Enide Martins. The skeleton of acyclic Birkhoff polytopes. *Linear Algebra and its Applications*, 457(??):29–48, September 15, 2014. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0024379514003127`.

Arambasic:2021:OPM

[AGK+21] Ljiljana Arambašić, Alexander Guterman, Bojan Kuzma, Rajna Rajić, and Svetlana

Zhilina. Operators preserving mutual strong Birkhoff–James orthogonality on $\mathcal{B}(H)$. *Linear Algebra and its Applications*, 624(??):27–43, September 1, 2021. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0024379521001592`.

Adcock:2012:HOR

[AIN12] Ben Adcock, Arieh Iserles, and Syvert P. Nørsett. From high oscillation to rapid approximation II: expansions in Birkhoff series. *IMA Journal of Numerical Analysis*, 32(1):105–140, January 2012. CODEN IJNADH. ISSN 0272-4979 (print), 1464-3642 (electronic). URL `http://imajna.oxfordjournals.org/content/32/1/105.full.pdf+html`.

Alvis:2001:BTP

[AK01] Dean Alvis and Michael Kinyon. Birkhoff's theorem for panstochastic matrices. *American Mathematical Monthly*, 108 (1):28–37, January 2001. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). URL `http://www.jstor.org/stable/2695673`. Refers to [Bir46e].

Amrhein:1994:BHT

[Amr94] B. Amrhein. Birkhoff's HSP-Theorem for cumulative logic programs. *Lecture Notes in Computer Science*, 798:24–36, 1994. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Anning:1933:PSA

[Ann33] Norman Anning. Problems and solutions: Advanced problems: Problems for solution: 3631. *American Mathematical Monthly*, 40(8):495–496, October 1933. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). See also [AR34, CB34, Dun35, ØB37, RK34].

Anonymous:1975:ORC

[Ano75] Anonymous. Opening remarks for the conference by Garrett Birkhoff and I. B. Cohen. *Historia Mathematica*, 2(4):433–436, November 1975. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/0315086075900993`.

Anonymous:1977:BRSd

[Ano77] Anonymous. Book review: *A source book in classical analysis*: Edited by Garrett Birkhoff with the assistance of Uta Merzbach. Cambridge, Mass. (Harvard University Press). 1973. *Historia Mathematica*, 4(3):364–365, August 1977. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.`

com/science/article/pii/0315086077900726.

Anonymous:19xx:BRA

[Anoxx] Anonymous. Book review: *Advances in Computers, Volume 3*. Franz L. Alt and Morris Rubinoff, eds. Academic Press, New York, 1962. 361 pp. *Transactions of the American Nuclear Society*, ??(??):465, ???? 19xx. CODEN TANSAO. ISSN 0003-018X. URL https://www.ans.org/pubs/journals/download/article-26563/.

Antosiewicz:1963:BRO

[Ant63] H. A. Antosiewicz. Book review: *Ordinary Differential Equations* (G. Birkhoff and G. C. Rota). *SIAM Review*, 5 (2):160–161, ???? 1963. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Anning:1934:PSA

[AR34] Norman Anning and B. D. Roberts. Problems and solutions: Advanced problems: 3631. *American Mathematical Monthly*, 41(8):525–527, October 1934. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). See also [Ann33].

Arambasic:2012:BJO

[AR12] Ljiljana Arambasić and Rajna Rajić. The Birkhoff–James orthogonality in Hilbert C^*-modules. *Linear Algebra and its Applications*, 437 (7):1913–1929, October 1, 2012. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0024379512003631.

Arambasic:2015:OPS

[AR15] Ljiljana Arambasić and Rajna Rajić. Operators preserving the strong Birkhoff–James orthogonality on $B(H)$. *Linear Algebra and its Applications*, 471(??):394–404, April 15, 2015. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0024379515000403.

Atkinson:1969:PCP

[AS69] K. Atkinson and A. Sharma. A partial characterization of poised Hermite–Birkhoff interpolation problems. *SIAM Journal on Numerical Analysis*, 6(2):230–235, June 1969. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Austin:1967:NBE

[Aus67] D. G. Austin. A note on the Birkhoff ergodic theorem. *Annals of mathematical statistics*, 38(3):922–923, June 1967. CODEN AASTAD. ISSN 0003-4851 (print), 2168-8990 (electronic). URL http://projecteuclid.org/euclid.aoms/1177698887.

Arambasic:2022:RRS

[AV22] Ljiljana Arambasić and Anda Valent. On a relation related to strong Birkhoff–James orthogonality. *Linear Multilinear Algebra*, 70(11):2088–2096, 2022. CODEN LNMLAZ. ISSN 0308-1087 (print), 1563-5139 (electronic).

Alexanderson:1983:CGB

[AW83] G. L. Alexanderson and Carroll Wilde. A conversation with Garrett Birkhoff. *Two-Year College Mathematics Journal*, 14(2):126–145, March 1983. CODEN ???? ISSN 0049-4925 (print), 2325-9116 (electronic). URL `http://www.tandfonline.com/doi/abs/10.1080/00494925.1983.11972669`.

Ali:1989:BGN

[AW89] M. K. Ali and W. Robert Wood. The Birkhoff–Gustavson normal form of one-dimensional double-well Hamiltonians. *Journal of Mathematical Physics*, 30(6):1238–1244, June 1989. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL `http://jmp.aip.org/resource/1/jmapaq/v30/i6/p1238_s1`.

Ali:1986:SBG

[AWD86] M. K. Ali, W. Robert Wood, and J. S. Devitt. On the summation of the Birkhoff–Gustavson normal form of an anharmonic oscillator. *Journal of Mathematical Physics*, 27 (7):1806–1812, July 1986. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL `http://jmp.aip.org/resource/1/jmapaq/v27/i7/p1806_s1`.

Barrar:1967:PFP

[Bar67] Richard B. Barrar. Proof of the fixed point theorems of Poincaré and Birkhoff. *Canadian Journal of Mathematics = Journal canadien de mathématiques*, 19(??):333–343, ???? 1967. CODEN CJMAAB. ISSN 0008-414X (print), 1496-4279 (electronic).

Birkhoff:1969:HST

[BAS69] Garrett Birkhoff and Ibrahim Abu-Shumays. Harmonic solutions of transport equations. *Journal of Mathematical Analysis and Applications*, 28(1):211–221, October 1969. CODEN JMANAK. ISSN 0022-247x (print), 1096-0813 (electronic). URL `https://pdf.sciencedirectassets.com/272578/1-s2.0-S0022247X00X04994/1-s2.0-0022247X69901231/main.pdf?`.

Birkhoff:1970:EAS

[BAS70] Garrett Birkhoff and Ibrahim K. Abu-Shumays. Exact analytic solutions of transport equations. *Journal of Mathematical Analysis and Applications*, 32(3):468–481, December 1970. CODEN JMANAK. ISSN 0022-247x (print), 1096-0813 (electronic).

Bautista:1998:PBW

[Bau98] César Bautista. A Poincaré–Birkhoff–Witt theorem for generalized Lie color algebras. *Journal of Mathematical Physics*, 39(7):3828–3843, July 1998. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427.

Birkhoff:1946:DPS

[BB46] George D. Birkhoff and Garrett Birkhoff. Distributive postulates for systems like Boolean algebras. *Transactions of the American Mathematical Society*, 60(1):3–11, July 1946. CODEN TAMTAM. ISSN 0002-9947 (print), 1088-6850 (electronic).

Birkhoff:1949:NNF

[BB49] Garrett Birkhoff and Lindley Burton. Note on Newtonian force-fields. *Canadian Journal of Mathematics = Journal canadien de mathématiques*, 1 (??):199–208, ???? 1949. CODEN CJMAAB. ISSN 0008-414X (print), 1496-4279 (electronic). URL `www.smc.math.ca/cjm/v1/p199`.

Birkhoff:1970:MAAa

[BB70a] Garrett Birkhoff and Thomas Creson Bartee. *Modern Applied Algebra*. McGraw-Hill, New York, NY, USA, 1970. ISBN 0-07-005381-2, 0-7005-3812-0. xi + 431 pp. LCCN QA251 .B49.

Birkhoff:1970:MAAb

[BB70b] Garrett Birkhoff and Thomas Creson Bartee. *Modern Applied Algebra*. Kogakucha, Tokyo, Japan, 1970. xi + 431 pp. LCCN QD154 B619m 1970.

Birkhoff:1973:AAD

[BB73] Garrett Birkhoff and Thomas C. Bartee. *Angewandte Algebra. (German) [Applied Algebra]*. R. Oldenbourg, München, Germany, 1973. 431 + 98 + 13 pp. Deutsche Übersetzung von Rudolf Herschel und Albert Lutz.

Bennett:1984:PAC

[BB84] M. K. Bennett and Garrett Birkhoff. A Peano axiom for convexity lattices. In *Calcutta Mathematical Society. Diamond-cum-platinum jubilee commemoration volume (1908–1983), Part I*, pages 33–43. Calcutta Mathematical Society, Calcutta, Bengal, India, 1984.

Bennett:1985:CL

[BB85a] M. K. Bennett and Garrett Birkhoff. Convexity lattices. *Algebra Universalis*, 20(1):1–26, 1985. ISSN 0002-5240 (print), 1420-8911 (electronic).

Birkhoff:1985:CLP

[BB85b] Garrett Birkhoff and M. K. Bennett. The convexity lattice of a poset. *Order (Dordrecht)*, 2(3):223–242, 1985. CODEN ORDRE5. ISSN 0167-8094 (print), 1572-9273 (electronic).

Birkhoff:1987:HGG

[BB87] Garrett Birkhoff and Mary Katherine Bennett. Hilbert's "*Grundlagen der Geometrie*". *Rendiconti del Circolo Matemàtico di Palermo. Serie II*, 36(3):343–389, 1987. ISSN 0009-725x (print), 1973-4409 (electronic).

Birkhoff:1988:FKH

[BB88] Garrett Birkhoff and M. K. Bennett. Felix Klein and his "Erlanger Programm". In *History and philosophy of modern mathematics. Proceedings of the conference, University of Minnesota, Minneapolis, MN, USA, May 17–19, 1985*, volume XI of *Minnesota Stud. Philos. Sci.*, pages 145–176. University of Minnesota Press, Minneapolis, MN, USA, 1988. ISBN 0-8166-1566-7; 0-8166-1567-5.

Bennett:1994:TFN

[BB94] M. K. Bennett and G. Birkhoff. Two families of Newman lattices. *Algebra Universalis*, 32 (1):115–144, 1994. ISSN 0002-5240 (print), 1420-8911 (electronic).

Bambusi:2005:BLT

[BB05] Dario Bambusi and Massimiliano Berti. A Birkhoff–Lewis-type theorem for some Hamiltonian PDEs. *SIAM Journal on Mathematical Analysis*, 37(1):83–102, 2005. CODEN SJMAAH. ISSN 0036-1410 (print), 1095-7154 (electronic). URL `http://epubs.siam.org/sam-bin/dbq/article/43610`.

Bellman:1969:TTP

[BBAS69] R. Bellman, G. Birkhoff, and I. Abu-Shumays, editors. *Transport theory. Proceedings of a symposium in applied mathematics of the American Mathematical Society and the Society for Industrial and Applied Mathematics. Held in New York City, April 5–8, 1967*. American Mathematical Society, Providence, RI, USA, 1969.

Bongiovanni:1988:CPR

[BBC88] G. Bongiovanni, D. P. Bovet, and A. Cerioli. Comments on a paper of R. A. Brualdi: "Notes on the Birkhoff algorithm for doubly stochastic matrices". *Canadian mathematical bulletin = Bulletin canadien de mathématiques*, 31(4): 394–398, December 1988. CODEN CMBUA3. ISSN 0008-4395 (print), 1496-4287 (electronic). See [Bru82].

Barnhill:1973:SIT

[BBG73] R. E. Barnhill, G. Birkhoff, and W. J. Gordon. Smooth interpolation in triangles. *Journal of Approximation Theory*, 8:114–128, 1973. CODEN JAXTAZ. ISSN 0021-9045 (print), 1096-0430 (electronic).

Birkhoff:1973:SWS

[BBK73] Garr Birkhoff, J. Bona, and Joseph Kampé de Fériet. Sta-

tistically well-set Cauchy problems. In *Probabilistic methods in applied mathematics, Vol. 3*, pages 1–120. Academic Press, New York, USA, 1973.

Benabdi:2022:BJO

[BBK22] El Hassan Benabdi, Abderrahim Baghdad, and Mohamed Chraibi Kaadoud. Birkhoff–James orthogonality and algebraic maximal numerical range in C^*-algebras. *Linear Multilinear Algebra*, 70(21): 6523–6534, 2022. CODEN LNMLAZ. ISSN 0308-1087 (print), 1563-5139 (electronic).

Birkhoff:1962:HIP

[BBL62] Garrett Birkhoff, Richard Bellman, and C. C. Lin, editors. *Hydrodynamic instability. Proceedings of the Thirteenth Symposium in Applied Mathematics of the American Mathematical Society, Hotel New Yorker, New York, USA, April 14–15, 1960*, volume 13 of *Symposia in Applied Mathematics*. American Mathematical Society, Providence, RI, USA, 1962. ISSN 0160-7634.

Birkhoff:1964:HIT

[BBL64] Garrett Birkhoff, Richard Bellman, and C. C. Lin. *Hydrodynamic instability*. Verlag 'Mir', Moskau, USSR, 1964. 372 pp. Translation from the English by A. S. Monin.

Birkhoff:1984:CAM

[BBL84] G. Birkhoff, John F. Brophy, and R. E. Lynch. Computing added mass coefficients. In Birkhoff and Schoenstadt [BS84], pages 427–437. ISBN 0-12-100560-7. LCCN QA377 .E533 1983.

Birkhoff:1949:FFP

[BC49] Garrett Birkhoff and Thomas E. Caywood. Fluid flow patterns. *Journal of Applied Physics*, 20(7):646–659, July 1949. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850. URL `https://pubs.aip.org/aip/jap/article-pdf/20/7/646/7916862/646_1_online.pdf`.

Birkhoff:1957:RPB

[BC57] Garrett Birkhoff and David Carter. Rising plane bubbles. *Journal of Mathematics and Mechanics*, 6(4):769–779, 1957. CODEN JOMMAN. ISSN 0095-9057 (print), 1943-5274 (electronic).

Bernardi:2006:PBP

[BC06] Olga Bernardi and Franco Cardin. Poincaré–Birkhoff periodic orbits for mechanical Hamiltonian systems on $T^*\mathbf{T}^n$. *Journal of Mathematical Physics*, 47(7):072701, July 2006. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL `http://jmp.aip.org/resource/1/jmapaq/v47/i7/p072701_s1`.

Birkhoff:1974:MAL

[BCG74] Garrett Birkhoff, James C. Cavendish, and William J. Gordon. Multivariate approximation by locally blended univariate interpolants. *Proceedings of the National Academy of Sciences of the United States of America*, 71(9):3423–3425, September 1, 1974. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic).

Butcher:2011:PAB

[BCGVS11] John C. Butcher, Robert M. Corless, Laureano Gonzalez-Vega, and Azar Shakoori. Polynomial algebra for Birkhoff interpolants. *Numerical Algorithms*, 56(3):319–347, March 2011. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=1017-1398&volume=56&issue=3&spage=319`.

Birkhoff:1956:NLN

[BD56] Garrett Birkhoff and J. B. Diaz. Non-linear network problems. *Quarterly of Applied Mathematics*, 13(4):431–443, 1956. CODEN QAMAAY. ISSN 0033-569X (print), 1552-4485 (electronic).

Birkhoff:1975:NSHa

[BD75a] Garrett Birkhoff and Vassilios A. Dougalis. Numerical solution of hydrodynamic problems. In R. Vichnevetsky, editor, *Advances in computer methods for partial differential equations: proceedings of the AICA International Symposium on Computer Methods for Partial Differential Equations, held at Lehigh University, Bethlehem, Pennsylvania, U.S.A., June 17–19, 1975*, pages 7–13. AICA, New Brunswick, NJ, USA, 1975. LCCN QA377 .A2 1975.

Birkhoff:1975:NSHb

[BD75b] Garrett Birkhoff and Vassilios A. Dougalis. Numerical solution of hydrodynamic problems. *AICA*, 17:88–94, 1975. CODEN AAICAE. ISSN 0020-594X.

Birkhoff:1976:CNM

[BD76] Garrett Birkhoff and Vassilios A. Dougalis. Comparison of numerical methods for solving wave equations. In Joanna W. Schot and Nils Salvesen, editors, *Proceedings of the First International Conference on Numerical Ship Hydrodynamics, 20–22 October, 1975*, pages 231–252. David W. Taylor Naval Ship Research and Development Center, Bethesda, MD, USA, 1976. LCCN VM156 .I568 1975.

Barreira:2004:BAH

[BD04] Luis Barreira and Paulo Doutor. Birkhoff averages for hyperbolic flows: Variational principles and applications. *Journal of Statistical Physics*, 115(5–6):1567–1603,

June 2004. CODEN JSTPSB. ISSN 0022-4715 (print), 1572-9613 (electronic). URL `http://link.springer.com/article/10.1023/B%3AJOSS.0000028069.64945.65`.

Birkhoff:1964:EBS

[BdB64] Garrett Birkhoff and Carl de Boor. Error bounds for spline interpolation. *Journal of Mathematics and Mechanics*, 13(5):827–835, 1964. CODEN JOMMAN. ISSN 0095-9057 (print), 1943-5274 (electronic).

Birkhoff:1965:PPI

[BdB65] Garrett Birkhoff and Carl R. de Boor. Piecewise polynomial interpolation and approximation. In Garabedian [Gar65], pages 164–190. LCCN ????

Birkhoff:1966:RRA

[BdBSW66] Garrett Birkhoff, C. de Boor, B. Swartz, and B. Wendroff. Rayleigh–Ritz approximation by piecewise cubic polynomials. *SIAM Journal on Numerical Analysis*, 3(2):188–203, June 1966. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Bebiano:2007:EBT

[BdPK07] Natália Bebiano, João da Providência, and Alexander Kovačec. An extension of Birkhoff's theorem with an application to determinants. *Linear Algebra and its Applications*, 427(1):130–137, November 1, 2007. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Bokhari:2000:BIS

[BDS00] M. A. Bokhari, H. P. Dikshit, and A. Sharma. Birkhoff interpolation on some perturbed roots of unity: revisited. *Numerical Algorithms*, 25 (1–4):47–62, September 2000. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `http://ipsapp007.kluweronline.com/content/getfile/5058/3/25/abstract.htm`; `http://ipsapp007.kluweronline.com/content/getfile/5058/3/25/fulltext.pdf`. Mathematical journey through analysis, matrix theory and scientific computation (Kent, OH, 1999).

Birkhoff:1963:BCM

[BE63] Garrett Birkhoff and Jerome Eckerman. Binary collision modeling. *Journal of Mathematics and Mechanics*, 12(4): 543–556, 1963. CODEN JOMMAN. ISSN 0095-9057 (print), 1943-5274 (electronic).

Birkhoff:1966:TTH

[BEM66] Garrett Birkhoff, J. Eckerman, and W. McKay. Transition and turbulence in hypersonic wakes. *The Physics of Fluids*, 9(3):446–452, March 1966. CODEN PHFLE6. ISSN 1070-6631. URL `https://pubs.aip.org/aip/`

pfl/article-pdf/12481629/446_1_online.pdf.

Bewley:1971:EBN

[Bew71] Truman Bewley. Extension of the Birkhoff and von Neumann ergodic theorems to semigroup actions. *Annales de l'Institut Henri Poincaré. Nouvelle série. Section B. Calcul des Probabilités et Statistique*, 7(4):283–291, October–December 1971. CODEN AHPBAR. ISSN 0020-2347. URL http://www.numdam.org/item?id=AIHPB_1971__7_4_283_0.

Birkhoff:1948:RLS

[BF48] Garrett Birkhoff and Orrin Frink, Jr. Representations of lattices by sets. *Transactions of the American Mathematical Society*, 64(2):299–316, September 1948. CODEN TAMTAM. ISSN 0002-9947 (print), 1088-6850 (electronic).

Birkhoff:1959:DVS

[BF59] Garrett Birkhoff and Joseph Fisher. Do vortex sheets roll up? *Rendiconti del Circolo Matemàtico di Palermo. Serie II*, 8:77–90, 1959. ISSN 0009-725x (print), 1973-4409 (electronic).

Birkhoff:1967:RRA

[BF67] Garrett Birkhoff and George Fix. Rayleigh–Ritz approximation by trigonometric polynomials. *Indian Journal of Mathematics*, 9:269–277, 1967. CODEN IJOMAL. ISSN 0019-5324.

Birkhoff:1970:AEC

[BF70] Garrett Birkhoff and George Fix. Accurate eigenvalue computations for elliptic problems. In Garrett Birkhoff and Richard S. Varga, editors, *Numerical Solution of Field Problems in Continuum Physics (Proceedings of the Symposium on Applied Mathematics, Durham, N.C., 1968), SIAM-AMS Proceedings, Vol. II*, volume II of *SIAM-AMS Proc.*, pages 111–151. American Mathematical Society, Providence, RI, USA, 1970.

Birkhoff:1971:FEM

[BF71] Garrett Birkhoff and George J. Fix. Finite element methods in reactor design calculations. *Transactions of the American Nuclear Society*, 14 (1):199–??, June 1971. CODEN TANSAO. ISSN 0003-018X. URL https://www.osti.gov/biblio/4021529.

Birkhoff:1974:HOF

[BF74] Garrett Birkhoff and George Fix. Higher-order finite element methods. Report, Oak Ridge National Laboratory, Oak Ridge, TN, USA, March 1, 1974. 34 pp. URL https://www.semanticscholar.org/paper/Higher-Order-Linear-Finite-Element-Methods.-Birkhoff-Fix/59d0368b4202d42832af1d0a7a88a26b

Benci:1988:BLT

[BF88] Vieri Benci and Donato Fortunato. A "Birkhoff–Lewis" type result for non autonomous differential equations. *Lecture Notes in Mathematics*, 1324:85–96, 1988. CODEN LNMAA2. ISBN 3-540-50111-8 (print), 3-540-45928-6 (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). URL `http://link.springer.com/chapter/10.1007/BFb0100784/`.

Birkhoff:1960:SSI

[BG60] Garrett Birkhoff and Henry L. Garabedian. Smooth surface interpolation. *Journal of Mathematics and Physics (MIT)*, 39(1–4):258–268, April 1960. CODEN JMPHA9. ISSN 0097-1421. URL `https://onlinelibrary.wiley.com/doi/epdf/10.1002/sapm1960391258`.

Birkhoff:1968:DRE

[BG68] Garrett Birkhoff and William J. Gordon. The draftsman's and related equations. *Journal of Approximation Theory*, 1:199–208, 1968. CODEN JAXTAZ. ISSN 0021-9045 (print), 1096-0430 (electronic).

Birkhoff:1973:END

[BG73] Garrett Birkhoff and Alan George. Elimination by nested dissection. In *Complexity of sequential and parallel numerical algorithms (Proceedings of the Symposium, Carnegie-Mellon Univ., Pittsburgh, Pa., 1973)*, pages 221–269. Academic Press, New York, USA, 1973.

Birkhoff:1974:OFP

[BG74] Garrett Birkhoff and Surender Gulati. Optimal few-point discretizations of linear source problems. *SIAM Journal on Numerical Analysis*, 11:700–728, 1974. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Birkhoff:1975:B

[BG75a] Garrett Birkhoff and Sue Ann Garwood. Bibliographies. *Historia Mathematica*, 2(4):605–615, November 1975. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/0315086075901305`.

Birkhoff:1975:P

[BG75b] Garrett Birkhoff and Sue Ann Garwood. Preface. *Historia Mathematica*, 2(4):429–430, November 1975. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/031508607590097X`.

Birkhoff:1979:IDT

[BG79] Garrett Birkhoff and Surender Gulati. Isotropic distributions of test matrices. *Zeitschrift für Angewandte Mathematik und Physik = Journal of Applied Mathematics and Physics*, 30

(2):148–158, 1979. CODEN ZAMPDB. ISSN 0044-2275 (print), 1420-9039 (electronic).

Birkhoff:1990:DMS

[BGL90] G. Birkhoff, E. C. Gartland, Jr., and R. E. Lynch. Difference methods for solving convection-diffusion equations. *Computers and Mathematics with Applications*, 19(11):147–160, 1990. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic).

Bazzani:1995:PCB

[BGT95] A. Bazzani, M. Giovannozzi, and E. Todesco. A program to compute Birkhoff normal forms of symplectic maps in R^4. *Computer Physics Communications*, 86(1–2):199–207, April 1995. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `http://www.sciencedirect.com/science/article/pii/001046559400140W`.

Birkhoff:1954:CPC

[BGZ54] Garrett Birkhoff, Herman H. Goldstine, and E. H. Zarantonello. Calculation of plane cavity flows past curved obstacles. *Univ. e Politec. Torino Rend. Sem. Mat.*, 13:205–224, 1954. ISSN 0373-1243.

Birkhoff:1935:GMPa

[BH35a] G. D. Birkhoff and M. R. Hestenes. Generalized minimax principle in the calculus of variations. *Proceedings of the National Academy of Sciences of the United States of America*, 21(2):96–99, February 1, 1935. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic).

Birkhoff:1935:GMPb

[BH35b] G. D. Birkhoff and M. R. Hestenes. Generalized minimax principle in the calculus of variations. *Duke Mathematical Journal*, 1(4):413–432, December 1935. CODEN DUMJAO. ISSN 0012-7094 (print), 1547-7398 (electronic).

Birkhoff:1935:NICa

[BH35c] G. D. Birkhoff and M. R. Hestenes. Natural isoperimetric conditions in the calculus of variations. *Proceedings of the National Academy of Sciences of the United States of America*, 21(2):99–102, February 1, 1935. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic).

Birkhoff:1935:NICb

[BH35d] G. D. Birkhoff and M. R. Hestenes. Natural isoperimetric conditions in the calculus of variations. *Duke Mathematical Journal*, 1(2), June 1935. CODEN DUMJAO. ISSN 0012-7094 (print), 1547-7398 (electronic).

Birkhoff:1936:OGA

[BH36] Garrett Birkhoff and Philip Hall. On the order of groups

of automorphisms. *Transactions of the American Mathematical Society*, 39(3):496–499, May 1936. CODEN TAMTAM. ISSN 0002-9947 (print), 1088-6850 (electronic).

Birkhoff:1963:FBP

[BH63] Garrett Birkhoff and Donald F. Hays. Free boundaries in partial lubrication. *Journal of Mathematics and Physics (MIT)*, 42(1–4):126–138, April 1963. CODEN JMPHA9. ISSN 0097-1421. URL `https://onlinelibrary.wiley.com/doi/epdf/10.1002/sapm1963421126`.

Birkhoff:1971:CAN

[BH71] Garrett Birkhoff and Marshall Hall, Jr., editors. *Computers in Algebra and Number Theory. Proceedings of a symposium in applied mathematics of the American Mathematical Society and the Society for Industrial and Applied Mathematics. Held in New York City, March 25–26, 1970*. American Mathematical Society, Providence, RI, USA, 1971.

Birkhoff:1970:TLT

[BHC+70] Garrett Birkhoff, Samuel S. Holland, Jr., Henry Crapo, Gian-Carlo Rota, and George Grätzer. *Trends in Lattice Theory*, volume 31 of *Van Nostrand Reinhold Mathematical Studies*. Van Nostrand Reinhold, New York, NY, USA, 1970. ix + 215 pp.

Broer:2003:BN

[BHLV03] Henk Broer, Igor Hoveijn, Gerton Lunter, and Gert Vegter. 4. Birkhoff normalization. *Lecture Notes in Mathematics*, 1806:71–84, 2003. CODEN LNMAA2. ISBN 3-540-00403-3 (print), 3-540-36398-X (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). URL `http://link.springer.com/chapter/10.1007/978-3-540-36398-9_4/`.

Birkhoff:1933:ADP

[Bir33a] Garrett Birkhoff. Axiomatic definitions of perfectly separable metric spaces. *Bulletin of the American Mathematical Society*, 39(8):601–607, August 1933. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1933:CS

[Bir33b] Garrett Birkhoff. On the combination of subalgebras. *Proceedings of the Cambridge Philosophical Society. Mathematical and physical sciences*, 29(4):441–464, October 30, 1933. CODEN PCPSA4. ISSN 0008-1981.

Birkhoff:1933:OGA

[Bir33c] Garrett Birkhoff. The order of groups of automorphisms. *Bulletin of the American Mathematical Society*, 39:871, 1933. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1933:TTG

[Bir33d] Garrett Birkhoff. A theorem on transitive groups. *Proceedings of the Cambridge Philosophical Society. Mathematical and physical sciences*, 29(2): 257–259, May 1933. CODEN PCPSA4. ISSN 0008-1981.

Birkhoff:1934:IFV

[Bir34a] G. Birkhoff. Integration of functions with values in a Banach space. *Bulletin of the American Mathematical Society*, 40:664, 1934. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1934:ALA

[Bir34b] Garrett Birkhoff. Applications of lattice algebra. *Proceedings of the Cambridge Philosophical Society. Mathematical and physical sciences*, 30(2): 115–122, April 30, 1934. CODEN PCPSA4. ISSN 0008-1981.

Birkhoff:1934:CRF

[Bir34c] Garrett Birkhoff. Combinatorial relations in finite projektive geometies. *Bulletin of the American Mathematical Society*, 40:209, 1934. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1934:HGa

[Bir34d] Garrett Birkhoff. Hausdorff groupoids. *Annals of Mathematics (2)*, 35(2):351–360, April 1934. CODEN ANMAAH. ISSN 0003-486X (print), 1939-8980 (electronic).

Birkhoff:1934:HGb

[Bir34e] Garrett Birkhoff. Hausdorff groupoids. *Bulletin of the American Mathematical Society*, 40:48, 1934. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1934:IARa

[Bir34f] Garrett Birkhoff. Ideals in algebraic rings. *Bulletin of the American Mathematical Society*, 40:801, 1934. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1934:IARb

[Bir34g] Garrett Birkhoff. Ideals in algebraic rings. *Proceedings of the National Academy of Sciences of the United States of America*, 20(11):571–573, November 1, 1934. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic). URL `www.ncbi.nlm.nih.gov/pmc/articles/PMC1076485`.

Birkhoff:1934:LER

[Bir34h] Garrett Birkhoff. Lattices of equivalence relations. *Bulletin of the American Mathematical Society*, 40:797, 1934. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1934:LEC

[Bir34i] Garrett Birkhoff. Linear extensions of complex-valued linear

functions in Banach space. *Bulletin of the American Mathematical Society*, 40:798, 1934. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1934:NPC

[Bir34j] Garrett Birkhoff. Note on the paper "On the combination of subalgebras". *Proceedings of the Cambridge Philosophical Society. Mathematical and physical sciences*, 30(2): 200, April 30, 1934. CODEN PCPSA4. ISSN 0008-1981.

Birkhoff:1934:MEL

[Bir34k] Garrett Birkhoff. On monogenic extensions of linear functionals. *Bulletin of the American Mathematical Society*, 40: 798, 1934. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1934:AAG

[Bir34l] Garrett Birkhoff. On the automorphisms of Abelian groups. *Bulletin of the American Mathematical Society*, 40:390–391, 1934. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1934:AGP

[Bir34m] Garrett Birkhoff. On the automorphismus of groups of prime-order. *Bulletin of the American Mathematical Society*, 40:391, 1934. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1934:LTI

[Bir34n] Garrett Birkhoff. On the lattice theory of ideals. *Bulletin of the American Mathematical Society*, 40(8):613–619, August 1934. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1934:OIP

[Bir34o] Garrett Birkhoff. Operational identities on points sets. *Bulletin of the American Mathematical Society*, 40:800–801, 1934. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1934:ONV

[Bir34p] Garrett Birkhoff. Orthogonality in normed vector spaces. *Bulletin of the American Mathematical Society*, 40:798–799, 1934. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1934:PSA

[Bir34q] Garrett Birkhoff. Problems and solutions: Advanced problems: Problems for solution: 3674. *American Mathematical Monthly*, 41(4):269–270, April 1934. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). See also [BRW35, DS35, ERG$^+$35, GW35, GL35, JS35].

Birkhoff:1934:SAG

[Bir34r] Garrett Birkhoff. Subgroups of Abelian groups. *Proceed-*

ings of the London Mathematical Society. Second Series, 38: 385–401, 1934. CODEN PLMTAL. ISSN 0024-6115 (print), 1460-244x (electronic).

Birkhoff:1934:TTSa

[Bir34s] Garrett Birkhoff. The topology of transformation-sets. *Annals of Mathematics (2)*, 35(4): 861–875, October 1934. CODEN ANMAAH. ISSN 0003-486X (print), 1939-8980 (electronic).

Birkhoff:1934:TTSb

[Bir34t] Garrett Birkhoff. The topology of transformation-sets. *Bulletin of the American Mathematical Society*, 40:48, 1934. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1934:TEJ

[Bir34u] Garrett Birkhoff. Transfinite extensions of the Jordan–Hölder theorem. *Bulletin of the American Mathematical Society*, 40:391, 1934. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1934:TSS

[Bir34v] Garrett Birkhoff. Transfinite subgroup series. *Bulletin of the American Mathematical Society*, 40(12):847–850, December 1934. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1935:ACGb

[Bir35a] Garrett Birkhoff. Abstract continuous groups. *Bulletin of the American Mathematical Society*, 41:189, 1935. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1935:ACGa

[Bir35b] Garrett Birkhoff. Abstract continuous groups. I: Linear spaces. *Bulletin of the American Mathematical Society*, 41: 483, 1935. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1935:ALD

[Bir35c] Garrett Birkhoff. Abstract linear dependence and lattices. *American Journal of Mathematics*, 57:800–804, 1935. CODEN AJMAAN. ISSN 0002-9327 (print), 1080-6377 (electronic).

Birkhoff:1935:CRP

[Bir35d] Garrett Birkhoff. Combinatorial relations in projective geometries. *Annals of Mathematics (2)*, 36(3):743–748, July 1935. CODEN ANMAAH. ISSN 0003-486X (print), 1939-8980 (electronic).

Birkhoff:1935:CMA

[Bir35e] Garrett Birkhoff. The composition of modular algebras. *Bulletin of the American Mathematical Society*, 41:782, 1935. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1935:IFV

[Bir35f] Garrett Birkhoff. Integration of functions with values in a Banach space. *Transactions of the American Mathematical Society*, 38(2):357–378, September 1935. CODEN TAMTAM. ISSN 0002-9947 (print), 1088-6850 (electronic).

Birkhoff:1935:NDL

[Bir35g] Garrett Birkhoff. A new definition of limit. *Bulletin of the American Mathematical Society*, 41:636, 1935. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1935:NCI

[Bir35h] Garrett Birkhoff. Noncommutative integration. *Bulletin of the American Mathematical Society*, 41:182, 1935. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1935:CT

[Bir35i] Garrett Birkhoff. On the combination of topologies. *Bulletin of the American Mathematical Society*, 41:349, 1935. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1935:LTI

[Bir35j] Garrett Birkhoff. On the lattice theory of ideals. II. *Bulletin of the American Mathematical Society*, 41:37, 1935. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1935:LTL

[Bir35k] Garrett Birkhoff. On the lattice theory of linear dependence. *Bulletin of the American Mathematical Society*, 41: 332, 1935. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1935:SAA

[Bir35l] Garrett Birkhoff. On the structure of abstract algebras. *Proceedings of the Cambridge Philosophical Society. Mathematical and physical sciences*, 31(4):433–454, October 1935. CODEN PCPSA4. ISSN 0008-1981.

Birkhoff:1935:OLM

[Bir35m] Garrett Birkhoff. Orthogonality in linear metric spaces. *Duke Mathematical Journal*, 1 (2):169–172, June 1935. CODEN DUMJAO. ISSN 0012-7094 (print), 1547-7398 (electronic).

Birkhoff:1935:PSL

[Bir35n] Garrett Birkhoff. Postulates systems for Lie groups. *Bulletin of the American Mathematical Society*, 41:329, 1935. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1935:ED

[Bir35o] Garrett Birkhoff. Sur les espaces discrets. *Comptes rendus de l'Académie des sciences, Paris*, 201:19–20, 1935. ISSN

0001-4036 (print), 2419-6304 (electronic).

Birkhoff:1936:CFG

[Bir36a] Garrett Birkhoff. Continuous free groups. *Bulletin of the American Mathematical Society*, 42:340, 1936. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1936:CGL

[Bir36b] Garrett Birkhoff. Continuous groups and linear spaces. *Rec. Math. Moscou, n. Ser.*, 1:635–642, 1936.

Birkhoff:1936:EDL

[Bir36c] Garrett Birkhoff. The enumeration of distributive lattices. *Bulletin of the American Mathematical Society*, 42: 487, 1936. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1936:FCG

[Bir36d] Garrett Birkhoff. Free continuous groups. II. *Bulletin of the American Mathematical Society*, 42:344, 1936. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1936:IDE

[Bir36e] Garrett Birkhoff. Integration of differential equations. In *C. R. Congr. internat. Math., Oslo 1936*, volume 2, pages 50–51. ????, ????, 1936.

Birkhoff:1936:LGI

[Bir36f] Garrett Birkhoff. Lie groups isomorphic in the large with no linear groups. *Bulletin of the American Mathematical Society*, 42:344, 1936. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1936:LGS

[Bir36g] Garrett Birkhoff. Lie groups simply isomorphic with no linear group. *Bulletin of the American Mathematical Society*, 42(12):883–888, December 1936. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1936:LRN

[Bir36h] Garrett Birkhoff. Linear representability of nilpotent Lie algebras. *Bulletin of the American Mathematical Society*, 42: 624, 1936. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1936:MSC

[Bir36i] Garrett Birkhoff. Moore-Smith convergence in general topology. *Bulletin of the American Mathematical Society*, 42: 44, 1936. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1936:NTGa

[Bir36j] Garrett Birkhoff. A note on topological groups. *Bulletin of the American Mathematical Society*, 42:26, 1936. CODEN

BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1936:NTGb

[Bir36k] Garrett Birkhoff. A note on topological groups. *Compositio Mathematica*, 3:427–430, 1936. CODEN CMPMAF. ISSN 0010-437x (print), 1570-5846 (electronic).

Birkhoff:1936:CT

[Bir36l] Garrett Birkhoff. On the combination of topologies. *Fundamenta mathematicae*, 26:156–166, 1936. ISSN 0016-2736 (print), 1730-6329 (electronic).

Birkhoff:1936:POS

[Bir36m] Garrett Birkhoff. Partially ordered sets and the inclusion relation. *Bulletin of the American Mathematical Society*, 42:43–44, 1936. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1937:EA

[Bir37a] Garrett Birkhoff. An extended arithmetic. *Duke Mathematical Journal*, 3(2):311–316, June 1937. CODEN DUMJAO. ISSN 0012-7094 (print), 1547-7398 (electronic).

Birkhoff:1937:GGT

[Bir37b] Garrett Birkhoff. Galois and group theory. *Osiris*, 3(31): 260–268, ???? 1937. CODEN OSIRAX. ISSN 0369-7827 (print), 1933-8287 (electronic). URL `http://www.jstor.org/stable/301590`.

Birkhoff:1937:GC

[Bir37c] Garrett Birkhoff. Generalized convergence. In *C. R. Congr. internat. Math., Oslo 1936*, volume 2, pages 152–153. ????, ????, 1937.

Birkhoff:1937:MC

[Bir37d] Garrett Birkhoff. The meaning of completeness. *Annals of Mathematics (2)*, 38(1):57–60, January 1937. CODEN ANMAAH. ISSN 0003-486X (print), 1939-8980 (electronic).

Birkhoff:1937:MSC

[Bir37e] Garrett Birkhoff. Moore–Smith convergence in general topology. *Annals of Mathematics (2)*, 38(1):39–56, January 1937. CODEN ANMAAH. ISSN 0003-486X (print), 1939-8980 (electronic).

Birkhoff:1937:OTA

[Bir37f] Garrett Birkhoff. Offprints of two articles by Garrett Birkhoff. UK National Archives, 1937. URL `https://discovery.nationalarchives.gov.uk/details/r/8e10cc1c-25fa-4793-a52c-583255326a3d`. Offprints of [Bir36g] and [Bir37j].

Birkhoff:1937:PI

[Bir37g] Garrett Birkhoff. On product integration. *Journal of Mathematics and Physics (MIT)*, 16(1–4):104–132, April 1937. CODEN JMPHA9. ISSN

0097-1421. URL https://onlinelibrary.wiley.com/doi/epdf/10.1002/sapm1937161104.

Birkhoff:1937:IO

[Bir37h] Garrett Birkhoff. On the integration of operators. *Proceedings of the National Academy of Sciences of the United States of America*, 23(1):11–13, January 1, 1937. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic).

Birkhoff:1937:OIR

[Bir37i] Garrett Birkhoff. Order and the inclusion relation. In *C. R. Congr. internat. Math., Oslo 1936*, page 37. ????, ????, 1937.

Birkhoff:1937:RLA

[Bir37j] Garrett Birkhoff. Representability of Lie algebras and Lie groups by matrices. *Annals of Mathematics (2)*, 38(2): 526–532, April 1937. CODEN ANMAAH. ISSN 0003-486X (print), 1939-8980 (electronic).

Birkhoff:1937:RS

[Bir37k] Garrett Birkhoff. Rings of sets. *Duke Mathematical Journal*, 3(3):443–454, September 1937. CODEN DUMJAO. ISSN 0012-7094 (print), 1547-7398 (electronic).

Birkhoff:1938:AG

[Bir38a] Garrett Birkhoff. Analytical groups. *Transactions of the American Mathematical Society*, 43(1):61–101, January 1938. CODEN TAMTAM. ISSN 0002-9947 (print), 1088-6850 (electronic).

Birkhoff:1938:DPS

[Bir38b] Garrett Birkhoff. Dependent probabilities and spaces L. *Proceedings of the National Academy of Sciences of the United States of America*, 24(3):154–159, March 1, 1938. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic).

Birkhoff:1938:LTA

[Bir38c] Garrett Birkhoff. Lattices and their applications. *Bulletin of the American Mathematical Society*, 44(12):793–800, 1938. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1939:ETG

[Bir39a] Garrett Birkhoff. An ergodic theorem for general semigroups. *Proceedings of the National Academy of Sciences of the United States of America*, 25(12):625–627, December 1, 1939. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic).

Birkhoff:1939:MET

[Bir39b] Garrett Birkhoff. The mean ergodic theorem. *Duke Mathematical Journal*, 5(1):19–20, March 1939. CODEN DUMJAO. ISSN 0012-7094 (print), 1547-7398 (electronic).

Birkhoff:1940:LT

[Bir40a] Garrett Birkhoff. *Lattice Theory*, volume 25 of *American Mathematical Society Publications*. American Mathematical Society, Providence, RI, USA, 1940. v + 155 pp.

Birkhoff:1940:NEG

[Bir40b] Garrett Birkhoff. Neutral elements in general lattices. *Bulletin of the American Mathematical Society*, 46:702–705, 1940. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1941:MFG

[Bir41] Garrett Birkhoff. Metric foundations of geometry. *Proceedings of the National Academy of Sciences of the United States of America*, 27(8):402–406, August 15, 1941. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic).

Birkhoff:1942:GA

[Bir42a] Garrett Birkhoff. Generalized arithmetic. *Duke Mathematical Journal*, 9(2):283–302, June 1942. CODEN DUMJAO. ISSN 0012-7094 (print), 1547-7398 (electronic). URL `http://projecteuclid.org/euclid.dmj/1077493225`.

Birkhoff:1942:LOG

[Bir42b] Garrett Birkhoff. Lattice-ordered groups. *Annals of Mathematics (2)*, 43(2):298–331, April 1942. CODEN ANMAAH. ISSN 0003-486x (print), 1939-8980 (electronic).

Birkhoff:1943:RGO

[Bir43a] Garrett Birkhoff. The radical of a group with operators. *Bulletin of the American Mathematical Society*, 49:751–753, 1943. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1943:WL

[Bir43b] Garrett Birkhoff. What is a lattice? *American Mathematical Monthly*, 50(8):484–487, October 1943. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Birkhoff:1944:MFG

[Bir44a] Garrett Birkhoff. Metric foundations of geometry. I. *Transactions of the American Mathematical Society*, 55(3):465–492, May 1944. CODEN TAMTAM. ISSN 0002-9947 (print), 1088-6850 (electronic).

Birkhoff:1944:SUU

[Bir44b] Garrett Birkhoff. Subdirect unions in universal algebra. *Bulletin of the American Mathematical Society*, 50:764–768, 1944. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1945:LOL

[Bir45] Garrett Birkhoff. Lattice-ordered Lie groups. In *Festschrift zum 60. Geburtstag von Prof. Dr. Andreas Speiser*,

pages 209–217. Orell Füssli, Zürich, Switzerland, 1945.

Birkhoff:1946:DBL

[Bir46a] Garrett Birkhoff. Drei Bemerkungen zur linearen Algebra. (German) [Three remarks on linear algebra]. *Rev., Ser. A, Univ. Nac. Tucumán*, 5:147–151, 1946. ISSN 0080-2360.

Birkhoff:1946:FVG

[Bir46b] Garrett Birkhoff. Formulacion de una conjetura de G. D. Birkhoff mediante una ecuacion integral. *Boletín de la Sociedad Matemática Mexicana*, 3:57–60, 1946.

Birkhoff:1946:RTD

[Bir46c] Garrett Birkhoff. Reversibility and two-dimensional airfoil theory. *American Journal of Mathematics*, 68:247–256, 1946. CODEN AJMAAN. ISSN 0002-9327 (print), 1080-6377 (electronic).

Birkhoff:1946:GAG

[Bir46d] Garrett Birkhoff. Sobre los grupos de automorfismos. *Revista de la Unión Matemática Argentina*, 11:155–157, 1946. ISSN 0041-6932 (print), 1669-9637 (electronic).

Birkhoff:1946:TOA

[Bir46e] Garrett Birkhoff. Tres observaciones sobre el algebra lineal. (Spanish) [Three observations on linear algebra]. *Univ. Nac. Tucumán. Revista A.*, 5:147–151, 1946. See also [AK01].

Birkhoff:1946:UA

[Bir46f] Garrett Birkhoff. Universal algebra. In *Proceedings of the First Canadian Mathematics Congress, Montreal, 1945*, pages 310–326. University of Toronto Press, Toronto, ON, Canada, 1946.

Birkhoff:1946:WL

[Bir46g] Garrett Birkhoff. What is a lattice? *Gazeta de Matemática (Lisboa)*, 7(27):1–3, 1946. ISSN 0373-2681.

Birkhoff:1948:HP

[Bir48a] Garrett Birkhoff. Hydrodynamical paradoxes. In Evert Willem Beth, Hendrik Josephus Pos, and J. H. A. Hollak, editors, *Library of the Tenth International Congress on Philosophy (Amsterdam, 11–18 August, 1948)*, pages 349–350. North-Holland Publishing Co., Amsterdam, The Netherlands, 1948. LCCN B20 .I6 1948x. Two volumes.

Birkhoff:1948:LT

[Bir48b] Garrett Birkhoff. *Lattice Theory*, volume 25 of *American Mathematical Society Colloquium Publications*. American Mathematical Society, Providence, RI, USA, revised edition, 1948. ISSN 0065-9258. xiii + 283 pp.

Birkhoff:1948:MEI

[Bir48c] Garrett Birkhoff. Mathematics for engineers – III: Dimensional analysis of partial differential

equations. *Electrical Engineering (American Institute of Electrical Engineers)*, 67(12): 1185–1188, December 1948. CODEN ELENAC. ISSN 0095-9197 (print), 2376-7804 (electronic).

Birkhoff:1948:RDF

[Bir48d] Garrett Birkhoff. Recent developments in free boundary theory. In *Proceedings of the Seventh International Congress on Applied Mechanics, London*, volume 2, pages 7–16. ????, ????, 1948.

Birkhoff:1948:RSD

[Bir48e] Garrett Birkhoff. Remarks on streamlines of discontinuity. *Revista de Ciencias, Lima*, 50:105–116, 1948. ISSN 0034-7760.

Birkhoff:1949:GR

[Bir49a] Garrett Birkhoff. Groupes réticulés. *Annales de l'Institut Henri Poincaré*, 11:241–250, 1949. CODEN AIHPA2. ISSN 0365-320x (print), 2400-4855 (electronic). URL `http://www.numdam.org/item?id=AIHP_1949__11_5_241_0`.

Birkhoff:1949:RDF

[Bir49b] Garrett Birkhoff. Recent developments in free boundary theory. In *Nonlinear Problems in Mechanics of Continua (Proceedings of the Symposia on Applied Mathematics, Brown University 2–4 August 1947, Vol. I)*, page 47. American Mathematical Society, Providence, RI, USA, 1949.

Birkhoff:1949:TAT

[Bir49c] Garrett Birkhoff. Théorie et applications des treillis. *Annales de l'Institut Henri Poincaré*, 11:227–240, 1949. CODEN AIHPA2. ISSN 0365-320x (print), 2400-4855 (electronic). URL `http://www.numdam.org/item?id=AIHP_1949__11_5_227_0`.

Birkhoff:1950:ELG

[Bir50a] Garrett Birkhoff. Extensions of Lie groups. *Mathematische Zeitschrift*, 53:226–235, 1950. CODEN MAZEAX. ISSN 0025-5874 (print), 1432-1823 (electronic).

Birkhoff:1950:HSL

[Bir50b] Garrett Birkhoff. *Hydrodynamics. A Study in Logic, Fact, and Similitude*. Princeton University Press, Princeton, NJ, USA, 1950. xiii + 186 pp.

Birkhoff:1950:MFB

[Bir50c] Garrett Birkhoff. Moyennes des fonctions bornées. (French) [Means of bounded functions]. In *Algèbre et Théorie des Nombres. (French) [Algebra and number theory]*, number 24 in Colloq. Internat. CNRS, pages 143–153. CNRS, Paris, France, 1950.

Birkhoff:1952:IMF

[Bir52a] Garrett Birkhoff. Induced mass with free boundaries. *Quarterly*

of Applied Mathematics, 10(1): 81–86, April 1952. CODEN QAMAAY. ISSN 0033-569X (print), 1552-4485 (electronic). URL `https://www.ams.org/journals/qam/1952-10-01/S0033-569X-1952-47441-0/S0033-569X-1952-47441-0.pdf`.

Birkhoff:1952:NTV

[Bir52b] Garrett Birkhoff. A new theory of vortex streets. *Proceedings of the National Academy of Sciences of the United States of America*, 38(5):409–410, May 1, 1952. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic).

Birkhoff:1952:SPL

[Bir52c] Garrett Birkhoff. Some problems of lattice theory. In *Proceedings of the International Congress of Mathematicians, Cambridge, Mass., 30 August–6 September 1950, vol. 2*, pages 4–7. American Mathematical Society, Providence, RI, USA, 1952.

Birkhoff:1953:FVS

[Bir53a] Garrett Birkhoff. Formation of vortex streets. *Journal of Applied Physics*, 24:98–103, 1953. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850.

Birkhoff:1953:IMV

[Bir53b] Garrett Birkhoff. Induced mass with variable density. *Quarterly of Applied Mathematics*, 11(1):109–110, April 1953. CODEN QAMAAY. ISSN 0033-569X (print), 1552-4485 (electronic).

Birkhoff:1954:CPD

[Bir54a] Garrett Birkhoff. Classification of partial differential equations. *Journal of the Society for Industrial and Applied Mathematics*, 2(1):57–67, March 1954. CODEN JSIMAV. ISSN 0368-4245 (print), 1095-712X (electronic). URL `semanticscholar.org/paper/1c342287001b694d7ee47717e024dce9d30befe`

Birkhoff:1954:FSH

[Bir54b] Garrett Birkhoff. Fourier synthesis of homogeneous turbulence. *Communications on Pure and Applied Mathematics (New York)*, 7:19–44, 1954. CODEN CPAMAT, CPMAMV. ISSN 0010-3640 (print), 1097-0312 (electronic).

Birkhoff:1954:IP

[Bir54c] Garrett Birkhoff. Induced potentials. In *Studies in mathematics and mechanics presented to Richard von Mises*, pages 88–96. Academic Press, New York, USA, 1954.

Birkhoff:1954:NTI

[Bir54d] Garrett Birkhoff. Note on Taylor instability. *Quarterly of Applied Mathematics*, 12(3):306–309, 1954. CODEN QAMAAY. ISSN 0033-569X (print), 1552-4485 (electronic).

Birkhoff:1954:TIL

[Bir54e] Garrett Birkhoff. Taylor instability and laminar mixing. Report LA-1862, Los Alamos National Laboratory, Los Alamos, NM, USA, December 1, 1954. i + 76 pp. URL `https://www.osti.gov/biblio/4372366`. See also Appendices A–H published separately in Report LA-1927 (1956) [Bir56b].

Birkhoff:1955:H

[Bir55a] G. Birkhoff. *Hydrodynamique*. Dunod, Paris, France, 1955. xii + 228 pp. Traduit de l'américain par M. Jorand.

Birkhoff:1955:HSL

[Bir55b] Garrett Birkhoff. *Hydrodynamics. A Study in Logic, Fact, and Similitude*. Dover Publications, Inc., New York, NY, USA, 1955. xiii + 186 pp.

Birkhoff:1956:SSB

[Bir56a] Garrett Birkhoff. Stability of spherical bubbles. *Quarterly of Applied Mathematics*, 13(4):451–453, 1956. CODEN QAMAAY. ISSN 0033-569X (print), 1552-4485 (electronic).

Birkhoff:1956:TIA

[Bir56b] Garrett Birkhoff. Taylor instability: Appendixes to Report LA-1862. Report LA-1927, Los Alamos National Laboratory, Los Alamos, NM, USA, May 2, 1956. iv + 91 pp. URL `https://sgp.fas.org/othergov/doe/lanl/lib-www/la-pubs/00353563.pdf`. Report written September 1955. Report distributed May 1956. Report reprinted December 1976. See also [Bir54e].

Birkhoff:1957:EJT

[Bir57] Garrett Birkhoff. Extensions of Jentzsch's theorem. *Transactions of the American Mathematical Society*, 85(1):219–227, May 1957. CODEN TAMTAM. ISSN 0002-9947 (print), 1088-6850 (electronic).

Birkhoff:1958:JWC

[Bir58a] Garrett Birkhoff. Jets, wakes and cavities. In ????, editor, *Hydrodynamic noise, cavity flow: [proceedings of the] second Symposium on Naval Hydrodynamics, August 25–29, 1958, Washington, D.C.*, pages 261–276. Office of Naval Research, Washington, DC, USA, 1958. ACR-38.

Birkhoff:1958:NLT

[Bir58b] Garrett Birkhoff. Von Neumann and lattice theory. *Bulletin of the American Mathematical Society*, 64(3 (part 2)):50–56, May 1958. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic). URL `http://projecteuclid.org/euclid.bams/1183522370`.

Birkhoff:1959:RCT

[Bir59] Garrett Birkhoff. Reactor criticality in transport the-

ory. *Proceedings of the National Academy of Sciences of the United States of America*, 45(4):567–569, April 1, 1959. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic).

Birkhoff:1960:AFE

[Bir60a] Garrett Birkhoff. Albedo functions for elliptic equations. In *Boundary problems in differential equations (Proceedings of the Symposium, Madison, April 20–22, 1959*, pages 163–178. University of Wisconsin Press, Madison, WI, USA, 1960.

Birkhoff:1960:HSL

[Bir60b] Garrett Birkhoff. *Hydrodynamics: a Study in Logic, Fact and Similitude*. Princeton University Press, Princeton, NJ, USA, revised edition, 1960. xi + 184 + 1 pp. Reprinted in [Bir16].

Birkhoff:1960:SMP

[Bir60c] Garrett Birkhoff. Some mathematical problems of nuclear reactor theory. In R. E. Langer, editor, *Frontiers of Numerical Mathematics (Symposium in Madison, WI, 1959)*, pages 23–44. University of Wisconsin Press, Madison, WI, USA, 1960.

Birkhoff:1961:CPF

[Bir61a] Garrett Birkhoff. Calculation of potential flows with free streamlines. *Journal of the Hydraulics Division*, 87 (6):17–22, November 1961. CODEN JYCEAJ. ISSN 0044-796X. URL `https://ascelibrary.org/doi/10.1061/JYCEAJ.0000657`.

Birkhoff:1961:LT

[Bir61b] Garrett Birkhoff. *Lattice Theory*, volume 25 of *American Mathematical Society Colloquium Publications*. American Mathematical Society, Providence, RI, USA, 1961. xiii + 283 pp. Revised ed.

Birkhoff:1961:LAM

[Bir61c] Garrett Birkhoff. Lattices in applied mathematics. In *Proceedings of the Symposia on Pure Mathematics, Vol. II*, pages 155–184. American Mathematical Society, Providence, RI, USA, 1961.

Birkhoff:1961:PC

[Bir61d] Garrett Birkhoff. Positivity and criticality. In *Proceedings of the Symposia Applied Pure Mathematics, Vol. XI*, pages 116–126. American Mathematical Society, Providence, RI, USA, 1961.

Birkhoff:1962:HTI

[Bir62a] Garrett Birkhoff. Helmholtz and Taylor instability. In *Proceedings of the Symposia on Applied Mathematics, Vol. XIII*, pages 55–76. American Mathematical Society, Providence, RI, USA, 1962.

Birkhoff:1962:NIT

[Bir62b] Garrett Birkhoff. A new interval topology for dually directed sets: [homenaje a A. Terracini y F. Cernuschi]. *Univ. Nac. Tucumán Rev. Ser. A*, 14:325–331, 1962. ISSN 0080-2360.

Birkhoff:1962:USP

[Bir62c] Garrett Birkhoff. Uniformly semi-primitive multiplicative processes. *Transactions of the American Mathematical Society*, 104(1):37–51, July 1962. CODEN TAMTAM. ISSN 0002-9947 (print), 1088-6850 (electronic).

Birkhoff:1963:HSL

[Bir63a] G. Birkhoff. *Hydrodynamics. A study in logic, fact and similitude*. Verlag für ausländische Literatur, Moskau, USSR, 1963. 244 pp.

Birkhoff:1963:LOD

[Bir63b] G. Birkhoff. Lattice-ordered demigroups. In *Algèbre Théorie Nombres, Sem. P. Dubreil, M.-L. Dubreil-Jacotin et C. Pisot 14 (1960/61)*, page 26. ????, ????, 1963.

Birkhoff:1963:RCN

[Bir63c] Garrett Birkhoff. Reactor criticality in neutron transport theory. *Rendiconti di Matematica e delle sue Applicazioni. Serie V*, 22:102–126, 1963. ISSN 1120-7175.

Birkhoff:1963:VPN

[Bir63d] Garrett Birkhoff. A variational principle for nonlinear networks. *Quarterly of Applied Mathematics*, 21(2):160–162, July 1963. CODEN QAMAAY. ISSN 0033-569X (print), 1552-4485 (electronic).

Birkhoff:1964:ACL

[Bir64a] Garrett Birkhoff. Averaged conservation laws in pipes. *Journal of Mathematical Analysis and Applications*, 8(1):66–77, February 1964. CODEN JMANAK. ISSN 0022-247x (print), 1096-0813 (electronic).

Birkhoff:1964:BRD

[Bir64b] Garrett Birkhoff. Book review: *Differential–difference equations*. By Richard Bellman. Academic Press, New York, London, 1963. xvi + 462 pp. *Quarterly of Applied Mathematics*, 22(2):164–165, July 1964. CODEN QAMAAY. ISSN 0033-569x (print), 1552-4485 (electronic).

Birkhoff:1964:FBP

[Bir64c] Garrett Birkhoff. Free boundary problems for viscous flows in channels. In R. M. Davies, editor, *Cavitation in Real Liquids (Proceedings of a Symposium, General Motors Research Laboratory, Warren, Mich., 1962)*, pages 102–121. Elsevier, Amsterdam, The Netherlands, 1964.

Birkhoff:1964:WSC

[Bir64d] Garrett Birkhoff. Well-set Cauchy problems and C_0-semigroups. *Journal of Mathematical Analysis and Applications*, 8(2):303–324, April 1964. CODEN JMANAK. ISSN 0022-247x (print), 1096-0813 (electronic).

Birkhoff:1965:WLP

[Bir65a] G. Birkhoff. The William Lowell Putnam Mathematical Competition: Early history. *American Mathematical Monthly*, 72(5):469–473, May 1965. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). URL `http://www.jstor.org/stable/2314116`.

Birkhoff:1965:NPL

[Bir65b] Garrett Birkhoff. Note on positive linear operators. *Proceedings of the American Mathematical Society*, 16:14–16, 1965. CODEN PAMYAR. ISSN 0002-9939 (print), 1088-6826 (electronic).

Birkhoff:1965:PDM

[Bir65c] Garrett Birkhoff. Partial difference methods. In *Proceedings of the IBM Scientific Computing Symposium on Large-Scale Problems in Physics (Yorktown Heights, NY, 1963)*, pages 17–36. IBM, White Plains, NY, USA, 1965.

Birkhoff:1965:USP

[Bir65d] Garrett Birkhoff. Uniformly semi-primitive multiplicative processes. II. *Journal of Mathematics and Mechanics*, 14(3): 507–512, 1965. CODEN JOMMAN. ISSN 0095-9057 (print), 1943-5274 (electronic).

Birkhoff:1966:NSR

[Bir66] Garrett Birkhoff. Numerical solution of the reactor kinetics equations. In Donald Greenspan, editor, *Numerical Solutions of Nonlinear Differential Equations: Proceedings of an advanced symposium conducted by the Mathematics Research Center, United States Army, at the University of Wisconsin, Madison, May 9–11, 1966*, pages 3–20. Wiley, New York, NY, USA, 1966. LCCN QA3 .U45 no. 17.

Birkhoff:1967:LT

[Bir67a] Garrett Birkhoff. *Lattice Theory*, volume 25 of *American Mathematical Society Colloquium Publications*. American Mathematical Society, Providence, RI, USA, third edition, 1967. ISSN 0065-9258. vi + 418 pp.

Birkhoff:1967:LFA

[Bir67b] Garrett Birkhoff. A limitation of Fourier analysis. *Journal of Mathematics and Mechanics*, 17(5):443–447, 1967. CODEN JOMMAN. ISSN 0095-9057 (print), 1943-5274 (electronic).

Birkhoff:1967:LTI

[Bir67c] Garrett Birkhoff. Linear transformations with invariant cones. *American Mathematical Monthly*, 74(3):274–276, March 1967. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Birkhoff:1967:LSA

[Bir67d] Garrett Birkhoff. Local spline approximation by moments. *Journal of Mathematics and Mechanics*, 16(9):987–990, 1967. CODEN JOMMAN. ISSN 0095-9057 (print), 1943-5274 (electronic).

Birkhoff:1969:NSE

[Bir69a] G. Birkhoff. Numerical solution of elliptic equations. In *Lectures on Differential Equations (USA 1966–1967)*, volume 2, pages 197–232. ????, ????, 1969.

Birkhoff:1969:STEa

[Bir69b] G. Birkhoff. Similarity and the transport equation. In *Probl. Gidrodinam. Mekh. sploshn. Sredy*, pages 49–54. ????, ????, 1969.

Birkhoff:1969:BRT

[Bir69c] Garrett Birkhoff. Book review: *The Theory of Splines and Their Applications* (J. H. Ahlberg, E. N. Nilson and J. L. Walsh). *SIAM Review*, 11 (1):91–92, ???? 1969. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Birkhoff:1969:MP

[Bir69d] Garrett Birkhoff. Mathematics and psychology. *SIAM Review*, 11(4):429–469, ???? 1969. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Birkhoff:1969:PBI

[Bir69e] Garrett Birkhoff. Piecewise bicubic interpolation and approximation in polygons. In I. J. Schoenberg, editor, *Approximations with Special Emphasis on Spline Functions (Proceedings of the Symposium, University of Wisconsin, Madison, Wisconsin, 1969)*, pages 185–221. Academic Press, New York, USA, 1969.

Birkhoff:1969:STEb

[Bir69f] Garrett Birkhoff. Similarity and the transport equation. In *Sedov Anniversary Volume*, pages 55–62. SIAM Press, Philadelphia, PA, USA, 1969.

Birkhoff:1970:WCL

[Bir70] Garrett Birkhoff. What can lattices do for you? In Abbott [Abb70], pages 1–40. ISBN 0-442-00215-7. LCCN QA171.5T74 1970. Written versions of four talks delivered to a symposium on trends in lattice theory held at the United States Naval Academy in May of 1966.

Birkhof:1971:MPIa

[Bir71a] Garet Birkhof. Mathematics and psychology. I. *Fiz.-Mat. Spis. Bulgar. Akad. Nauk.*, 14 (47):212–231, 1971. ISSN 0015-3265.

Birkhof:1971:MPIb

[Bir71b] Garet Birkhof. Mathematics and psychology. II. *Fiz.-Mat. Spis. Bulgar. Akad. Nauk.*, 14 (47):297–322, 1971. ISSN 0015-3265.

Birkhoff:1971:ASE

[Bir71c] Garrett Birkhoff. Angular singularities of elliptic problems. Technical Report HUX-3971-5; NSA-25-018228, Harvard University, Cambridge, MA, USA, October 31, 1971. ?? pp. URL `https://www.osti.gov/biblio/4035800`.

Birkhoff:1971:NSE

[Bir71d] Garrett Birkhoff. *The Numerical Solution of Elliptic Equations*, volume 1 of *Conference Board of the Mathematical Sciences Regional Conference Series in Applied Mathematics*. SIAM Press, Philadelphia, PA, USA, 1971. xi + 82 pp.

Birkhoff:1971:RMA

[Bir71e] Garrett Birkhoff. The role of modern algebra in computing. In Garrett Birkhoff and Marshall Hall, editors, *Computers in algebra and number theory (Proceedings of the SIAM-AMS Symposium on Applied Mathematics, New York, 1970)*, volume IV of *SIAM-AMS Proc.*, pages 1–47. American Mathematical Society, Providence, RI, USA, 1971.

Birkhoff:1971:TPI

[Bir71f] Garrett Birkhoff. Tricubic polynomial interpolation. *Proceedings of the National Academy of Sciences of the United States of America*, 68 (6):1162–1164, June 1, 1971. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic).

Birkhoff:1972:ASE

[Bir72a] Garrett Birkhoff. Angular singularities of elliptic problems. *Journal of Approximation Theory*, 6:215–230, 1972. CODEN JAXTAZ. ISSN 0021-9045 (print), 1096-0430 (electronic).

Birkhoff:1972:CTA

[Bir72b] Garrett Birkhoff. Current trends in algebra. *Matematikai Lapok. Bolyai János Matematikai Társulat*, 23:237–255, 1972. ISSN 0025-519X.

Birkhoff:1972:MEI

[Bir72c] Garrett Birkhoff. Mathematical education: The impact of computers on undergraduate mathematical education in 1984. *American Mathematical Monthly*, 79(6):648–657, June/July 1972. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Birkhoff:1972:PAI

[Bir72d] Garrett Birkhoff. Piecewise analytic interpolation and approximation in triangulated polygons. In A. K. Aziz, editor, *The mathematical foundations of the finite element method with applications to partial differential equations (Proceedings of the Symposium, University of Maryland, Baltimore, Md., 1972)*, pages 363–385. Academic Press, New York, USA, 1972.

Birkhoff:1973:CTA

[Bir73a] Garrett Birkhoff. Current trends in algebra. *American Mathematical Monthly*, 80(7): 760–782, August/September 1973. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Birkhoff:1973:IBD

[Bir73b] Garrett Birkhoff. Interpolation to boundary data in triangles. *Journal of Mathematical Analysis and Applications*, 42(2):474–484, May 1973. CODEN JMANAK. ISSN 0022-247x (print), 1096-0813 (electronic). Collection of articles dedicated to Salomon Bochner.

Birkhoff:1973:MAC

[Bir73c] Garrett Birkhoff. Mathematical analysis of cavitation. In L. I. Sedov and G. Yu. Stepanov, editors, *Neustan. Tecenija Vody bol's. Skorost., Trudy mezdunarod. Simpoz. Leningrad 1971*, pages 19–38. Nauka, Moscow, USSR, 1973.

Birkhoff:1973:NTF

[Bir73d] Garrett Birkhoff. Numerical techniques of fluid flow. *Transactions of the American Nuclear Society*, 17(??):242–??, November 1973. CODEN TANSAO. ISSN 0003-018X. URL `https://www.osti.gov/biblio/4391942`.

Birkhoff:1973:SBC

[Bir73e] Garrett Birkhoff, editor. *A Source Book in Classical Analysis*. Source books in the history of the sciences. Harvard University Press, Cambridge, MA, USA, 1973. ISBN 0-674-82245-5 (hardcover). xii + 470 pp. LCCN QA300 .B54 1973.

Birkhof:1974:CTA

[Bir74a] Garet Birkhof. Current trends in algebra. *Fiz.-Mat. Spis. Bulgar. Akad. Nauk.*, 17(50):190–210, 1974. ISSN 0015-3265.

Birkhoff:1974:BRO

[Bir74b] Garrett Birkhoff. Book review: *Origins of modern algebra*: By Lubos Novy. Prague (Academia), 1973. 260 p. *Historia Mathematica*, 1(3):333–337, August 1974. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/0315086074900780`.

Birkhoff:1974:CCT

[Bir74c] Garrett Birkhoff. Corrections to: "Current trends in algebra" (Amer. Math. Monthly **80** (1973), 760–782). *American Mathematical Monthly*, 81(7): 746, August/September 1974. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Birkhoff:1974:CTFb

[Bir74d] Garrett Birkhoff. Current trends in algebra. *Matematikai Lapok. Bolyai János Matematikai Társulat*, 23:237–255, 1974. ISSN 0025-519X.

Birkhoff:1975:FRS

[Bir75a] Garrett Birkhoff. Final report [on solving the multigroup diffusion equations]. Technical report, Office of Scientific and Technical Information (OSTI), Washington, DC, USA, January 1975. 5 pp. URL `https://www.osti.gov/servlets/purl/4110081`.

Birkhoff:1975:Ia

[Bir75b] Garrett Birkhoff. Introduction. *Historia Mathematica*, 2(4):437–438, November 1975. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/0315086075901007`.

Birkhoff:1975:Ib

[Bir75c] Garrett Birkhoff. Introduction. *Historia Mathematica*, 2(4):473–474, November 1975. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/0315086075901081`.

Birkhoff:1975:Ic

[Bir75d] Garrett Birkhoff. Introduction. *Historia Mathematica*, 2(4):503–505, November 1975. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/0315086075901123`.

Birkhoff:1975:Id

[Bir75e] Garrett Birkhoff. Introduction. *Historia Mathematica*, 2(4):535–536, November 1975. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/0315086075901172`.

Birkhoff:1975:Ie

[Bir75f] Garrett Birkhoff. Introduction. *Historia Mathematica*, 2(4):573–574, November 1975. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/0315086075901238`.

Birkhoff:1975:MCS

[Bir75g] Garrett Birkhoff. Mathematics and computer sci-

ence: Skillful combinations of mathematics and computer science hold great promise for the future. *American Scientist*, 63(1):83–91, January/February 1975. CODEN AMSCAC. ISSN 0003-0996 (print), 1545-2786 (electronic). URL `https://www.jstor.org/stable/27845273`.

Birkhoff:1975:THN

[Bir75h] Garrett Birkhoff. Two Hadamard numbers for matrices. *Communications of the ACM*, 18(1):25–29, January 1975. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Collection of articles honoring Alston S. Householder.

Birkhoff:1976:PM

[Bir76a] Garret Birkhoff. Psychology of mathematics. *Pokroky Matematiky, Fyziky a Astronomie*, 21 (1):1–16, 1976. CODEN PMFAA4. ISSN 0032-2423. Translated from the English (SIAM Rev. **11** (1969), 429–469).

Birkhoff:1976:CTAa

[Bir76b] Garrett Birkhoff. Current trends in algebra. *Pokroky Matematiky, Fyziky a Astronomie*, 21(4):199–211, 1976. CODEN PMFAA4. ISSN 0032-2423.

Birkhoff:1976:CTAb

[Bir76c] Garrett Birkhoff. Current trends in algebra. *Pokroky Matematiky, Fyziky a Astronomie*, 21(??):249–259, 1976. CODEN PMFAA4. ISSN 0032-2423.

Birkhoff:1976:HMA

[Bir76d] Garrett Birkhoff. House monotone apportionment schemes. *Proceedings of the National Academy of Sciences of the United States of America*, 73 (3):684–686, March 1, 1976. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic).

Birkhoff:1976:MP

[Bir76e] Garrett Birkhoff. Mathematics and psychology. *Pokroky Matematiky, Fyziky a Astronomie*, 21:1–16, 1976. CODEN PMFAA4. ISSN 0032-2423.

Birkhoff:1976:NUT

[Bir76f] Garrett Birkhoff. Note on universal topological algebra. *Algebra Universalis*, 6(1):21–23, 1976. ISSN 0002-5240 (print), 1420-8911 (electronic).

Birkhoff:1976:RMAb

[Bir76g] Garrett Birkhoff. The rise of modern algebra, 1936–1950. In Dalton Tarwater, editor, *Men and Institutions in America*, volume 13 of *Texas Tech. Graduate Studies*, pages 65–85. Texas Technological University, Lubbock, TX, USA, 1976.

Birkhoff:1976:RMAa

[Bir76h] Garrett Birkhoff. The rise of modern algebra to 1936.

In Dalton Tarwater, editor, *Men and Institutions in America*, volume 13 of *Texas Tech. Graduate Studies*, pages 41–63. Texas Technological University, Lubbock, TX, USA, 1976.

Birkgoff:1977:CMP

[Bir77a] Garret Birkgoff. *Matematika i psikhologiya*. Izdat. "Sovetskoe Radio", Moscow, USSR, 1977. 96 pp. Translated from the English by G. N. Povarov.

Birkhoff:1977:AMF

[Bir77b] Garrett Birkhoff. Applied mathematics and its future. In Edward Teller and Robb W. Thomson, editors, *Science and Technology in America: an Assessment*, volume 465 of *National Bureau of Standards Special Publication*, pages 82–104. U.S. National Bureau of Standards, Gaithersburg, MD, USA, 1977. CODEN XNBSAV. The Distinguished Lecture Series published on the occasion of the 75th Anniversary of the National Bureau of Standards.

Birkhoff:1977:BRA

[Bir77c] Garrett Birkhoff. Book review: *Adventures of a mathematician*: By S. M. Ulam. New York (Scribners). 1976. 317 pp. $17.50. *Historia Mathematica*, 4(2):233–236, May 1977. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/0315086077901318`.

Birkhoff:1977:SLA

[Bir77d] Garrett Birkhoff. Some leaders in American mathematics. In Tarwater [Tar77], pages 25–78. URL `https://maa.org/sites/default/files/pdf/ABOUTMAA/History/Bicentennial_Tribute.pdf`.

Birkhoff:1978:BRH

[Bir78a] Garrett Birkhoff. Book review: *A History of Numerical Analysis from the 16th Through the 19th Century*, by Herman H. Goldstine. *Historia Mathematica*, 5(4):479–482, November 1978. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/0315086078902264`.

Birkhoff:1978:STP

[Bir78b] Garrett Birkhoff. Similarity in two-phase fluid flows. In N. H. Ibragimov and L. V. Ovsjannikov, editors, *Group theoretical methods in mechanics, Proceedings of the joint IUTAM/IMU Symposium, Novosibirsk 1978*, pages 58–78. ????, ????, 1978.

Birkhoff:1979:AMI

[Bir79a] Garrett Birkhoff. The algebra of multivariate interpolation. In C. V. Coffman and G. J. Fix, editors, *Constructive approaches to mathematical models (Proceedings of a Confer-*

ence in honor of R. J. Duffin, Pittsburgh, Pa., 1978), pages 345–363. Academic Press, New York, USA, 1979. ISBN 0-12-178150-X.

Birkhoff:1979:LT

[Bir79b] Garrett Birkhoff. *Lattice Theory*, volume 25 of *American Mathematical Society Colloquium Publications*. American Mathematical Society, Providence, RI, USA, third edition, 1979. ISBN 0-8218-1025-1. vi + 418 pp.

Birkhoff:1979:LTC

[Bir79c] Garrett Birkhoff. *Lattice Theory*, volume 25 of *Colloq. Publ., Am. Math. Soc.* American Mathematical Society, Providence, RI, USA, third (corrected reprint) edition, 1979. ISSN 0065-9258.

Birkhoff:1979:RGG

[Bir79d] Garrett Birkhoff. Review of G. Grätzer, *General Lattice Theory. Bulletin of the American Mathematical Society*, 1 (??):789–92, ???? 1979. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881X (electronic).

Birkhoff:1979:RJD

[Bir79e] Garrett Birkhoff. Review of J. Dieudonné, *Abrégé d'Histoire des Mathématiques: 1700–1900. Advances in Mathematics*, 34(??):185–194, ???? 1979. CODEN ADMTA4. ISSN 0001-8708 (print), 1090-2082 (electronic).

Birkhoff:1979:RRT

[Bir79f] Garrett Birkhoff. Review of Roberto Torretti, *Philosophy of Geometry from Riemann to Poincaré*, Reidel, 1978. *Advances in Mathematics*, 34(??): 399–400, ???? 1979. CODEN ADMTA4. ISSN 0001-8708 (print), 1090-2082 (electronic).

Birkhoff:1980:BRC

[Bir80a] Garrett Birkhoff. Book review: *Computational analysis with the HP 25 pocket calculator*, by Peter Henrici, John Wiley, New York, 1977, 280 pp.; *Compact numerical methods for computers: linear algebra and function minimization*, by J. C. Nash, John Wiley & Sons, New York, 1979, x + 227 pp.; *LINPACK: User's guide*, by J. J. Dongarra, J. R. Bunch, C. B. Moler, and G. W. Stewart, Society for Industrial and Applied Mathematics, Philadelphia, 1979 368 pp. *Bulletin of the American Mathematical Society*, 2(3): 503–505, May 1980. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881X (electronic). URL `https://www.ams.org/journals/bull/1980-02-03/S0273-0979-1980-14785-0/S0273-0979-1980-14785-0.pdf`.

Birkhoff:1980:BRE

[Bir80b] Garrett Birkhoff. Book review: *Die entstehung der verbandsteorie*: By Herbert Mehrtens.

Hildesheim (Gerstenberg Verlag). 1979. ix + 363 pp. 42 DM. *Historia Mathematica*, 7(4):454–457, November 1980. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/0315086080900154`.

Birkhoff:1980:CDS

[Bir80c] Garrett Birkhoff. Computer developments 1935–1955, as seen from Cambridge, U.S.A. In Metropolis et al. [MHR80], pages 21–30. ISBN 0-12-491650-3, 1-4832-9668-7 (e-book). LCCN QA75.5 .I63 1976. Original versions of these papers were presented at the International Research Conference on the History of Computing, held at the Los Alamos Scientific Laboratory, 10–15 June 1976.

Birkhoff:1980:RBC

[Bir80d] Garrett Birkhoff. Review of books on computers by Peter Henrici and others. *Bulletin of the American Mathematical Society*, 2(??):503–535, ???? 1980. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881X (electronic).

Birkhoff:1980:RHM

[Bir80e] Garrett Birkhoff. Review of H. Mehrtens, *Die Entstelung der Verbandstheorie. Historia Mathematica*, ??(??):??, ???? 1980. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic).

Birkhoff:1981:TRR

[Bir81a] Garrett Birkhoff. *Teoriya reshetok. (Russian) [Lattice theory]*. Glavnaya Redaktsiya Fiziko-Matematicheskoj Literatury. "Nauka", Moscow, USSR, 1981. 568 pp. Translated from the English by V. N. Salij. Edited by L. A. Skornyakov.

Birkhoff:1981:SEP

[Bir81b] Garrett Birkhoff. Solving elliptic problems: 1930–1980. In Schultz [Sch81], pages 17–38. ISBN 0-12-632620-7. LCCN QA377 .E53 1980.

Birkhoff:1982:GDB

[Bir82a] Garrett Birkhoff. George D. Birkhoff's theory of gravitation. In *Selected studies: physics-astrophysics, mathematics, history of science*, pages 57–77. North-Holland Publishing Co., Amsterdam, The Netherlands, 1982. ISBN 0-444-86161-0. See [].

Birkhoff:1982:OSG

[Bir82b] Garrett Birkhoff. Ordered sets in geometry. In *Ordered sets (Proceedings of the NATO Advanced Study Institute, Banff, Alta., 1981)*, volume 83 of *NATO Adv. Study Inst. Ser. C: Math. Phys. Sci.*, pages 407–443. D. Reidel, Dordrecht, The Netherlands; Boston, MA, USA; Lancaster, UK; Tokyo,

Japan, 1982. ISBN 90-277-1396-0. Appendix by M. K. Bennett on pages 436–443.

Birkhoff:1982:SAU

[Bir82c] Garrett Birkhoff. Some applications of universal algebra. In *Universal algebra (Proceedings of the Colloquium of the Mathematical Society Janos Bolya, Esztergom, Hungary, 1977)*, volume 29 of *Colloq. Math. Soc. János Bolyai*, pages 107–128. North-Holland Publishing Co., Amsterdam, The Netherlands, 1982. ISBN 0-444-85405-3.

Birkhoff:1983:BRB

[Bir83a] Garrett Birkhoff. Book review: *John von Neumann and Norbert Wiener*: By Steve Heims. Cambridge, Mass., and London (M.I.T. Press). 1981. *Historia Mathematica*, 10(2):243–248, May 1983. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/0315086083900745`.

Birkhoff:1983:BRJ

[Bir83b] Garrett Birkhoff. Book review: *John von Neumann and Norbert Wiener*: By Steve Heims. Cambridge, Mass., and London (M.I.T. Press). 1981. *Historia Mathematica*, 10(2):243–248, May 1983. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/0315086083900745`.

Birkhoff:1983:NPI

[Bir83c] Garrett Birkhoff. Nonlinear product integration. In Themistocles M. Rassias, editor, *Global analysis — analysis on manifolds*, volume 57 of *Teubner-Texte Math.*, pages 43–50. Teubner, Stuttgart, Germany; Leipzig, Germany, 1983. Dedicated to M. Morse.

Birkhoff:1983:NFD

[Bir83d] Garrett Birkhoff. Numerical fluid dynamics. *SIAM Review*, 25(1):1–34, January 1983. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic). URL `https://www.jstor.org/stable/2030018`.

Birkhoff:1983:RMY

[Bir83e] Garrett Birkhoff. Richard von Mises' years at Harvard. *Zeitschrift für Angewandte Mathematik und Mechanik*, 63 (7):283–284, 1983. CODEN ZAMMAX. ISSN 0044-2267 (print), 1521-4001 (electronic).

Birkhoff:1983:SEP

[Bir83f] Garrett Birkhoff. Solving elliptic problems: 1930–1980. *Appl. Math. Math. Comput.*, 6:1–10, 1983. Translated from the English by Jia Chang Sun.

Birkgof:1984:CTR

[Bir84a] G. Birkgof. *Teoriya reshetok. (Russian) [Lattice theory].* "Nauka", Moscow, USSR, 1984. 566 pp. Edited by L. A. Skornyakov. Translated from

the English and with an appendix by V. N. Saliĭ.

Birkhoff:1984:NFDb

[Bir84b] Garet Birkhoff. Numerical fluid dynamics. II. *Fiz.-Mat. Spis. Bulgar. Akad. Nauk.*, 26(59) (3):271–294, 1984. ISSN 0015-3265. Translated from the English by Pet′o P. Petkov.

Birkhoff:1984:NFDa

[Bir84c] Garrett Birkhoff. Numerical fluid dynamics. *Fiz.-Mat. Spis. Bulgar. Akad. Nauk.*, 26(59) (2):150–167, 1984. ISSN 0015-3265. Translated from the English by R. Lazov.

Birkhoff:1985:SMP

[Bir85] Garrett Birkhoff. Some mathematical problems of numerical ocean acoustics. *Computers and Mathematics with Applications*, 11(7–8):643–654, 1985. CODEN CMAPDK. ISSN 0898-1221 (print), 1873-7668 (electronic). Reprinted in [Bir86].

Birkhoff:1986:SMP

[Bir86] Garrett Birkhoff. Some mathematical problems of numerical ocean acoustics. In Ding Lee and M. H. Schultz, editors, *Numerical Ocean Acoustics*, page ?? Pergamon Press, New York, NY, USA, 1986. Computational ocean acoustics (New Haven, Conn., 1984).

Birkhoff:1987:SWF

[Bir87] Garrett Birkhoff. Sound waves in fluids. *Applied Numerical Mathematics: Transactions of IMACS*, 3(1-2):3–24, 1987. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Birkhoff:1988:ROC

[Bir88a] Garrett Birkhoff. The role of order in computing. In *Reliability in computing*, volume 19 of *Perspectives in Computing*, pages 357–378. Academic Press, New York, USA, 1988. ISBN 0-12-505630-3.

Birkhoff:1988:SWF

[Bir88b] Garrett Birkhoff. Sound waves in fluids: mathematical models and physical reality. In *Applied mathematics, fluid mechanics, astrophysics (Cambridge, MA, 1987)*, pages 35–45. World Scientific Publishing Co., Singapore; Philadelphia, PA, USA; River Edge, NJ, USA, 1988. ISBN 9971-5-0245-3.

Birkhoff:1989:MH

[Bir89] Garrett Birkhoff. Mathematics at Harvard, 1836–1944. In *A century of mathematics in America, Part II*, volume 2 of *Hist. Math.*, pages 3–58. American Mathematical Society, Providence, RI, USA, 1989. ISBN 0-8218-0130-9.

Birkhoff:1990:FDR

[Bir90] Garrett Birkhoff. Fluid dynamics, reactor computations, and

surface representation. In Nash [Nas90], pages 63–87. ISBN 0-201-50814-1. LCCN QA76.17 .H59 1990.

Birkhoff:1991:CH

[Bir91] Garrett Birkhoff. Carathéodory and Harvard. In *Constantin Carathéodory: an international tribute, Vol. I, II*, pages 65–75. World Scientific Publishing Co., Singapore; Philadelphia, PA, USA; River Edge, NJ, USA, 1991. ISBN 981-02-0544-9.

Birkhoff:1995:LTA

[Bir95] Garrett Birkhoff. Lattices and their applications. In *Lattice theory and its applications (In celebration of Garrett Birkhoff's 80th birthday. Darmstadt, 1991)*, volume 23 of *Res. Exp. Math.*, pages 7–25. Heldermann Verlag, Lemgo, Germany, 1995. ISBN 3-88538-223-7.

Birkhoff:1997:BRJ

[Bir97] Garrett Birkhoff. Book review: *John von Neumann*. By Norman Macrae. New York (Random House). 1992. *Historia Mathematica*, 24(1):98–100, February 1997. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0315086097921376`.

Birkhoff:2016:H

[Bir16] Garrett Birkhoff. *Hydrodynamics*. Princeton University Press, Princeton, NJ, USA, April 19, 2016. ISBN 1-4008-7777-6. xi + 184 + 1 pp. LCCN QA911 .B48 1960. URL `https://press.princeton.edu/books/hardcover/9780691652269/hydrodynamics`. Princeton Legacy Library reprint of [Bir60b].

Birkhoff:1947:TOD

[BK47] Garrett Birkhoff and S. A. Kiss. A ternary operation in distributive lattices. *Bulletin of the American Mathematical Society*, 53:749–752, 1947. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1952:FAW

[BK52] Garrett Birkhoff and Jack Kotik. Fourier analysis of wave trains. In G. Keulegan, editor, *Gravity Waves*, volume Circular 521 of *National Bureau of Standards*, pages 221–234. United States Government Printing Office, Washington, DC, USA, 1952.

Birkhoff:1954:MTH

[BK54a] Garrett Birkhoff and Joseph Kampé de Fériet. Sur un modèle de turbulence homogène isotrope. *Comptes rendus de l'Académie des sciences, Paris*, 239:16–18, 1954. ISSN 0001-4036 (print), 2419-6304 (electronic).

Birkhoff:1954:NHE

[BK54b] Garrett Birkhoff and Jack Kotik. Note on the heat equation. *Proceedings of the American Mathematical Society*, 5: 162–167, 1954. CODEN PAMYAR. ISSN 0002-9939 (print), 1088-6826 (electronic).

Birkhoff:1954:STM

[BK54c] Garrett Birkhoff and Jack Kotik. Some transformations of Michell's integral. *Publications from the National Technical University of Athens*, 1954 (10):26, 1954.

Birkhoff:1954:TWR

[BK54d] Garrett Birkhoff and Jack Kotik. Theory of the wave of resistance of ships. II. The calculation of Michell's integral. *Transactions of the Society of Naval Architects and Marine Engineers*, 62:372–385, 1954. ISSN 0081-1661.

Birkoff:1958:KHT

[BK58] Garrett Birkhoff and Joseph Kampé de Fériet. Kinematics of homogeneous turbulence. *Journal of Mathematics and Mechanics*, 7(5):663–703, 1958. CODEN JOMMAN. ISSN 0095-9057 (print), 1943-5274 (electronic).

Birkhoff:1962:KHT

[BK62] Garrett Birkhoff and Joseph Kampé de Fériet. Kinematics of homogeneous turbulence. D. Metric transitivity. *Journal of Mathematics and Mechanics*, 11(3):319–340, 1962. CODEN JOMMAN. ISSN 0095-9057 (print), 1943-5274 (electronic).

Birkhoff:1965:EPS

[BK65] Garrett Birkhoff and Leon Kotin. Essentially positive systems of linear differential equations. *Bulletin of the American Mathematical Society*, 71 (4):771–772, July 1965. CODEN BAMOAD. ISSN 0002-9904 (print), 1936-881x (electronic).

Birkhoff:1966:SEE

[BK66a] Garrett Birkhoff and Bruce Kellogg. Solution of equilibrium equations in thermal networks. In *Proceedings of the Symposium on Generalized Networks (New York, 1966)*, volume XVI of *Microwave Research Institute Symposia Series*, pages 443–452. Brooklyn Polytechnic, Brooklyn, NY, USA, 1966.

Birkhoff:1966:ABS

[BK66b] Garrett Birkhoff and Leon Kotin. Asymptotic behavior of solutions of first-order linear differential-delay equations. *Journal of Mathematical Analysis and Applications*, 13(1):8–18, January 1966. CODEN JMANAK. ISSN 0022-247x (print), 1096-0813 (electronic).

Birkhoff:1966:IDD

[BK66c] Garrett Birkhoff and Leon Kotin. Integro-differential delay equations of positive type. *Journal of Differential Equations*, 2:320–327, 1966. CODEN JDEQAK. ISSN 0022-0396 (print), 1090-2732 (electronic).

Birkhoff:1967:LSOa

[BK67] Garrett Birkhoff and Leon Kotin. Linear second-order differential equations of positive type. *Journal d'analyse mathématique*, 18:43–52, 1967. CODEN JOAMAV. ISSN 0021-7670 (print), 1565-8538 (electronic).

Birkhoff:1969:TOP

[BK69] Garrett Birkhoff and Leon Kotin. Third order positive cyclic systems of linear differential equations. *Journal of Differential Equations*, 5:182–196, 1969. CODEN JDEQAK. ISSN 0022-0396 (print), 1090-2732 (electronic).

Birkhoff:1970:PCS

[BK70] Garrett Birkhoff and Leon Kotin. Positive cyclic systems of linear differential equations. *Journal of Differential Equations*, 7:407–416, 1970. CODEN JDEQAK. ISSN 0022-0396 (print), 1090-2732 (electronic).

Birkhoff:1971:PCS

[BK71] Garrett Birkhoff and Leon Kotin. Positive cyclic systems of linear differential equations. In *Transactions of the Sixteenth Conference Army Mathematics*, volume 71-1, pages 102–111. U.S. Army Research Office, Durham, NC, USA, 1971.

Birkhoff:1973:GLI

[BK73] Garrett Birkhoff and Leon Kotin. A generalization of Liapunov's inequality. In *Transactions of the Eighteenth Conference of Army Mathematicians (Feltman Research Laboratory, Picatinny Arsenal, Dover, New Jersey, 1972)*, volume 73-1 of *U.S. Army Research Office (Durham), Report*, pages 203–211. U.S. Army Research Office (Durham), Durham, NC, USA, 1973.

Birkhoff:1975:GTO

[BK75] Garrett Birkhoff and Leon Kotin. The geometry of third-order positive cyclic systems of linear differential equations. In *Transactions of the 20th Conference on Army Mathematics, Natick, Mass. 1974*, pages 97–112. ????, ????, 1975.

Birkhoff:1976:AFD

[BK76a] Garrett Birkhoff and Leon Kotin. Autonomous families of differential systems. *Journal of Mathematical Analysis and Applications*, 55(2):466–475, August 1976. CODEN JMANAK. ISSN 0022-247x (print), 1096-0813 (electronic).

Birkhoff:1976:OSU

[BK76b] Garrett Birkhoff and Leon Kotin. The orbit structure of uniformly positive cyclic systems. *Journal of Mathematical Analysis and Applications*, 55 (2):476–489, August 1976. CODEN JMANAK. ISSN 0022-247x (print), 1096-0813 (electronic).

Birkhoff:1984:EFA

[BK84] Garrett Birkhoff and Erwin Kreyszig. The establishment of functional analysis. *Historia Mathematica*, 11(3):258–321, August 1984. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic). URL `http://www.sciencedirect.com/science/article/pii/0315086084900363`.

Birkhoff:1954:WRS

[BKKK54] Garrett Birkhoff, Jack Kotik, and B. Korvin-Kroukovsky. Wave resistance of ships. *Transactions of the Society of Naval Architects and Marine Engineers*, ??(??):359–396, ???? 1954.

Birkhoff:1959:PNS

[BL59] Garrett Birkhoff and R. E. Langer, editors. *Proceedings of the Ninth Symposium in Applied Mathematics of the American Mathematical Society. Held at New York University, April 4–6, 1957. Orbit theory*, volume 9 of *Proc. Symp. Appl. Math.* American Mathematical Society, Providence, RI, USA, 1959. ISSN 0160-7634.

Birkhoff:1962:SMH

[BL62a] G. Birkhoff and R. E. Lynch. Synthetic materials for hydrodynamical computations. *Annals of Harvard University*, 31: 23–31, 1962.

Birkhoff:1962:LHC

[BL62b] Garrett Birkhoff and Robert E. Lynch. Lagrangian hydrodynamic computations and molecular models of matter. Report LA-2618, Los Alamos National Laboratory, Los Alamos, NM, USA, 1962. iii + 58 pp. URL `https://www.osti.gov/servlets/purl/4821933`.

Birkhoff:1966:NST

[BL66] Garrett Birkhoff and Robert E. Lynch. Numerical solution of the telegraph and related equations. In *Numerical Solution of Partial Differential Equations (Proceedings of a Symposium University of Maryland, 1965)*, pages 289–315. Academic Press, New York, USA, 1966.

Birkhoff:1970:HA

[BL70] Garrett Birkhoff and John D. Lipson. Heterogeneous algebras. *Journal of Combinatorial Theory*, 8:115–133, 1970. CODEN JCTHAR. ISSN 0021-9800 (print), 1878-1756 (electronic).

Birkhoff:1974:UAA

[BL74] Garrett Birkhoff and John D. Lipson. Universal algebra and automata. In *Proceedings of the Tarski Symposium (Proceedings of the Symposium on Pure Mathematics in Honor of Alfred Tarski, Vol. XXV, University of California, Berkeley, Calif., 1971)*, volume XXV of *Proceedings of the Symposium Pure Math.*, pages 41–51. American Mathematical Society, Providence, RI, USA, 1974.

Birkhoff:1980:AMC

[BL80] Garrett Birkhoff and Robert E. Lynch. Added mass of cylinders. *Mathematics and Computers in Simulation*, 22(4): 291–297, 1980. CODEN MCSIDR. ISSN 0378-4754 (print), 1872-7166 (electronic).

Birkhoff:1984:NSE

[BL84] Garrett Birkhoff and Robert E. Lynch. *Numerical Solution of Elliptic Problems*, volume 6 of *SIAM Studies in Applied Mathematics*. SIAM Press, Philadelphia, PA, USA, 1984. ISBN 0-89871-197-5. xi + 319 pp.

Birkhoff:1990:EIR

[BL90a] Garrett Birkhoff and Robert E. Lynch. ELLPACK and ITPACK as research tools for solving elliptic problems. In *Iterative methods for large linear systems (Austin, TX, 1988)*, pages 41–63. Academic Press, New York, USA, 1990. ISBN 0-12-407475-8.

Birkhoff:1990:SCQ

[BL90b] Garrett Birkhoff and Robert E. Lynch. Some current questions on solving linear elliptic problems. *Numerische Mathematik*, 57(6-7):527–545, 1990. CODEN NUMMA7. ISSN 0029-599x (print), 0945-3245 (electronic).

Birkhoff:1997:SMA

[BL97] Garrett Birkhoff and Saunders Mac Lane. *A Survey of Modern Algebra*. A. K. Peters, Ltd., Wellesley, MA, USA, fifth edition, 1997. ISBN 1-56881-068-7.

Birkhoff:1941:SMA

[BM41] Garrett Birkhoff and Saunders Mac Lane. *A Survey of Modern Algebra*. Macmillan Publishing Company, New York, NY, USA, 1941. xi + 450 pp.

Birkhoff:1953:SMA

[BM53] Garrett Birkhoff and Saunders Mac Lane. *A Survey of Modern Algebra*. Macmillan Publishing Company, New York, NY, USA, revised [second??] edition, 1953. xi + 472 pp. Rev. ed.

Birkhoff:1958:RPD

[BM58] Garrett Birkhoff and Thomas Mullikin. Regular partial differential equations. *Proceedings of the American Mathematical Society*, 9(1):18–25, February 1958. CODEN PAMYAR.

ISSN 0002-9939 (print), 1088-6826 (electronic).

Birkhoff:1962:CCS

[BM62] Garrett Birkhoff and Robert Morris. Confocal conics in space–time. *American Mathematical Monthly*, 69(1):1–4, January 1962. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Birkhoff:1965:BSM

[BM65a] Garrett Birkhoff and Saunders Mac Lane. *A Brief Survey of Modern Algebra*. Macmillan Publishing Company, New York, NY, USA, second edition, 1965. vii + 279 pp. LCCN QA251 .B5 1965.

Birkhoff:1965:SMA

[BM65b] Garrett Birkhoff and Saunders Mac Lane. *A Survey of Modern Algebra*. Macmillan Publishing Company, New York, NY, USA, third edition, 1965. x + 437 pp.

Birkhoff:1974:CTFa

[BM74] Garrett Birkhoff and Lois Mansfield. Compatible triangular finite elements. *Journal of Mathematical Analysis and Applications*, 47(3):531–553, September 1974. CODEN JMANAK. ISSN 0022-247x (print), 1096-0813 (electronic).

Birkhoff:1977:SMA

[BM77] Garrett Birkhoff and Saunders Mac Lane. *A Survey of Modern Algebra*. Macmillan Publishing Company, New York, NY, USA, fourth edition, 1977. ISBN 0-02-310070-2. xi + 500 pp. LCCN QA162 .B57 1977.

Birkhoff:1992:SMA

[BM92] Garrett Birkhoff and Saunders Mac Lane. *A survey of modern algebra*: the fiftieth anniversary of its publication. *The Mathematical Intelligencer*, 14(1):26–31, 1992. CODEN MAINDC. ISSN 0343-6993 (print), 1866-7414 (electronic).

Birkhoff:1958:SBG

[BMH58] Garrett Birkhoff, R. S. Margulies, and W. A. Horning. Spherical bubble growth. *The Physics of Fluids*, 1:201–204, 1958. CODEN PHFLE6. ISSN 0031-9171.

Birkhoff:1948:ELC

[BMPT48] Garrett Birkhoff, Duncan P. MacDougall, Emerson Pugh, and Sir Geoffrey Taylor. Explosives with lined cavities. *Journal of Applied Physics*, 19 (6):563–582, June 1948. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850. URL `https://pubs.aip.org/aip/jap/article-pdf/19/6/563/7916271/563_1_online.pdf`.

Birkhoff:2003:SSP

[BMT03] Garrett Birkhoff, Marco Martens, and Charles Tresser. On the scaling structure for period doubling. *Astérisque*, 286:xix,

167–186, 2003. ISBN 2-85629-138-4. ISSN 0303-1179. Geometric methods in dynamics (I). Volume in honor of Jacob Palis. In part papers presented at the international conference on dynamical systems held at IMPA, Rio de Janeiro, Brazil, July 2000, to celebrate Jacob Palis' 60th birthday.

Bojanov:1990:CBT

[BN90] Borislav Bojanov and Geno Nikolov. Comparison of Birkhoff type quadrature formulae. *Mathematics of Computation*, 54(190):627–648, April 1990. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Bozic:2010:TSV

[BNBV10] Vladan Bozic, Truong Nguyen-Ba, and Rémi Vaillancourt. A three-stage, VSVO, Hermite–Birkhoff–Taylor, ODE solver. *Applied Mathematics and Computation*, 216(2):598–610, March 15, 2010. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0096300310001062`.

Bogart:1971:RAS

[Bog71] K. P. Bogart. Reviews: *Algebra*, by Saunders Mac Lane and Garret Birkhoff. *American Mathematical Monthly*, 78 (1):92–93, January 1971. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Bogart:1985:RBA

[Bog85] Kenneth Bogart. Reviews: *Basic Algebra*, by Nathan Jacobson, W. H. Freeman, Saunders Mac Lane, and Garrett Birkhoff. *American Mathematical Monthly*, 92(10):743–745, December 1985. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Bojanov:1993:IPS

[Boj93] Borislav Bojanov. Interpolation by periodic splines with Birkhoff knots. *Numerische Mathematik*, 65(1):63–75, May 1993. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Bona:1988:NPG

[Bon88] C. Bona. A new proof of the generalized Birkhoff theorem. *Journal of Mathematical Physics*, 29(6):1440–1441, June 1988. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL `http://jmp.aip.org/resource/1/jmapaq/v29/i6/p1440_s1`.

Borgers:1989:NSR

[Bör89] Christoph Börgers. On the numerical solution of the regularized Birkhoff equations. *Mathematics of Computation*, 53 (187):141–156, July 1989. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Boyling:1970:BGF

[Boy70] J. B. Boyling. Birkhoff gravitational field of Milne's universe. *Journal of Mathematical Physics*, 11(3):867–870, March 1970. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL `http://jmp.aip.org/resource/1/jmapaq/v11/i3/p867_s1`.

Birkhoff:1956:LOR

[BP56] Garrett Birkhoff and R. S. Pierce. Lattice-ordered rings. *Anais da Academia Brasileira de Ciências*, 28:41–69, 1956. ISSN 0001-3765 (print), 1678-2690 (electronic).

Birkhoff:1967:HIE

[BP67] Garrett Birkhoff and Arthur S. Priver. Hermite interpolation errors for derivatives. *Journal of Mathematics and Physics (MIT)*, 46(1–4):440–447, April 1967. CODEN JMPHA9. ISSN 0097-1421. URL `https://onlinelibrary.wiley.com/doi/epdf/10.1002/sapm1967461440`.

Birkhoff:1971:OSG

[BP71] Garrett Birkhoff and Arthur S. Priver. Optimal smoothing of Gaussian periodic data. *Indiana University Mathematics Journal*, 21(2):103–113, 1971. CODEN IUMJAB. ISSN 0022-2518.

Birkhoff:1950:WEC

[BPS50] Garrett Birkhoff, Milton Plesset, and N. Simmons. Wall effects in cavity flow. I. *Quarterly of Applied Mathematics*, 8(2):151–168, July 1950. CODEN QAMAAY. ISSN 0033-569X (print), 1552-4485 (electronic).

Birkhoff:1952:WEC

[BPS52] Garrett Birkhoff, Milton Plesset, and N. Simmons. Wall effects in cavity flow. II. *Quarterly of Applied Mathematics*, 9(4):413–421, January 1952. CODEN QAMAAY. ISSN 0033-569X (print), 1552-4485 (electronic).

Birkhoff:1960:CSL

[BR60] Garrett Birkhoff and Gian-Carlo Rota. On the completeness of Sturm–Liouville expansions. *American Mathematical Monthly*, 67(9):835–841, November 1960. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Birkhoff:1962:ODE

[BR62] Garrett Birkhoff and Gian-Carlo Rota. *Ordinary Differential Equations*. Introductions to Higher Mathematics. Ginn and Company, Boston, Mass.-New York-Toronto, 1962. vii + 318 pp.

Birkhoff:1969:ODE

[BR69] Garrett Birkhoff and Gian-Carlo Rota. *Ordinary Differential Equations*. Blaisdell Pub. Co., Waltham, MA, USA, second edition, 1969. xiv + 366 pp.

Birkhoff:1978:ODE

[BR78] Garrett Birkhoff and Gian-Carlo Rota. *Ordinary Differential Equations*. Wiley, New York, NY, USA, third edition, 1978. ISBN 0-471-07411-X. xi + 342 pp.

Birkhoff:1989:ODE

[BR89] Garrett Birkhoff and Gian-Carlo Rota. *Ordinary Differential Equations*. Wiley, New York, NY, USA, fourth edition, 1989. ISBN 0-471-86003-4. xii + 399 pp.

Brainerd:1960:BPM

[Bra60] Barron Brainerd. On Birkhoff's problem 73 for monoids. *Canadian mathematical bulletin = Bulletin canadien de mathématiques*, 3(??):217–220, ???? 1960. CODEN CMBUA3. ISSN 0008-4395 (print), 1496-4287 (electronic).

Brualdi:1982:NBA

[Bru82] Richard A. Brualdi. Notes on the Birkhoff algorithm for doubly stochastic matrices. *Canadian mathematical bulletin = Bulletin canadien de mathématiques*, 25(2):191–199, June 1982. CODEN CMBUA3. ISSN 0008-4395 (print), 1496-4287 (electronic). See comments [BBC88].

Birkhoff:1935:PSA

[BRW35] Garrett Birkhoff, E. D. Rainville, and Morgan Ward. Problems and solutions: Advanced problems: 3674. *American Mathematical Monthly*, 42(8):518–521, October 1935. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). See also [Esc34].

Birkgof:1964:CSS

[BS64] G. Birkgof and È. Sarantonello. *Strui, sledy i kaverny. (Russian) [Jets, wakes and cavities]*. Izdat. "Mir", Moscow, USSR, 1964. 466 pp.

Benson:1982:DSM

[BS82] R. V. Benson and R. C. Shiflett. Doubly stochastic matrices over arbitrary vector spaces and the Birkhoff theorem. *Linear Algebra and its Applications*, 42(??):145–158, February 1982. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0024379582901458`.

Birkhoff:1984:EPS

[BS84] Garrett Birkhoff and Arthur L. Schoenstadt, editors. *Elliptic Problem Solvers, II (Proceedings of the Elliptic Problem Solvers Conference, sponsored by the Mathematics and Mechanics Branch, Office of Naval Research, held in Monterey, California, January 10–12, 1983)*. Academic Press, New York, USA, 1984. ISBN 0-12-100560-7. LCCN QA377 .E533 1983.

Brodbeck:1993:GBT

[BS93] Othmar Brodbeck and Norbert Straumann. A generalized Birkhoff theorem for the Einstein–Yang–Mills system. *Journal of Mathematical Physics*, 34(6):2412–2423, June 1993. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL `http://jmp.aip.org/resource/1/jmapaq/v34/i6/p2412_s1`.

Birkhoff:1968:PHI

[BSV68] G. Birkhoff, M. H. Schultz, and R. S. Varga. Piecewise Hermite interpolation in one and two variables with applications to partial differential equations. *Numerische Mathematik*, 11 (3):232–256, March 1968. CODEN NUMMA7. ISSN 0029-599x (print), 0945-3245 (electronic). URL `http://www.math.kent.edu/~varga/pub/paper_37.pdf`.

Bueso:1999:WFG

[BTL99] J. L. Bueso, J. Gómez Torrecillas, and F. J. Lobillo. When is a finitely generated algebra of Poincaré–Birkhoff–Witt type? *SIGSAM Bulletin*, 33(3):14–15, September 1999. CODEN SIGSBZ. ISSN 0163-5824 (print), 1557-9492 (electronic).

Birkhoff:1957:IAD

[BV57a] Garrett Birkhoff and Richard S. Varga. Implicit alternating direction methods. Technical Report WAPD-T-650; NSA-12-003044, Westinghouse Electric Corporation Bettis Plant, Pittsburgh, PA, USA, October 1, 1957. ?? pp. URL `https://www.osti.gov/biblio/4317092`.

Birkhoff:1957:RCN

[BV57b] Garrett Birkhoff and Richard S. Varga. Reactor criticality and non-negative matrices. Technical Report WAPD-166; NSA-11-013507, Westinghouse Electric Corporation Bettis Plant, Pittsburgh, PA, USA, August 1, 1957. ?? pp. URL `https://www.osti.gov/biblio/4334992`.

Birkhoff:1958:RCN

[BV58] Garrett Birkhoff and Richard S. Varga. Reactor criticality and nonnegative matrices. *Journal of the Society for Industrial and Applied Mathematics*, 6(4):354–377, December 1958. CODEN JSIMAV. ISSN 0368-4245 (print), 1095-712X (electronic). URL `hdl.handle.net/2027/mdp.39015095064807`; `http://www.math.kent.edu/~varga/pub/paper_8.pdf`. See errata [BV59a].

Birkhoff:1959:ERC

[BV59a] Garrett Birkhoff and Richard S. Varga. Errata: "Reactor Criticality and Nonnegative Matrices" [J. SIAM **6** (1958), no. 4, 354–377]. *Journal of the Society for Industrial and Applied Mathematics*, 7(3):343,

September 1959. CODEN JSIMAV. ISSN 0368-4245 (print), 1095-712X (electronic). See [BV58].

Birkhoff:1959:IAD

[BV59b] Garrett Birkhoff and Richard S. Varga. Implicit alternating direction methods. *Transactions of the American Mathematical Society*, 92(1):13–24, July/September 1959. CODEN TAMTAM. ISSN 0002-9947 (print), 1088-6850 (electronic). URL `http://www.math.kent.edu/~varga/pub/paper_10.pdf`; `https://www.ams.org/journals/tran/1959-092-01/S0002-9947-1959-0105814-4/S0002-9947-1959-0105814-4.pdf`; `https://www.jstor.org/stable/1993164`.

Birkhoff:1965:DEW

[BV65] Garrett Birkhoff and Richard S. Varga. Discretization errors for well-set Cauchy problems. I. *Journal of Mathematics and Physics (MIT)*, 44 (1–4):1–23, April 1965. CODEN JMPHA9. ISSN 0097-1421. URL `http://www.math.kent.edu/~varga/pub/paper_28.pdf`; `https://onlinelibrary.wiley.com/doi/epdf/10.1002/sapm19654411`.

Birkhoff:1970:SNA

[BV70a] G. Birkhoff and R. S. Varga, editors. *Studies in Numerical Analysis, 2: Numerical Solutions of Nonlinear Problems (Symposia, SIAM, Philadelphia, Pa., 21–23 October 1968)*. SIAM Press, Philadelphia, PA, USA, 1970. LCCN QA297 .S95 1968.

Birkhoff:1970:NSF

[BV70b] Garrett Birkhoff and Richard S. Varga, editors. *Numerical solution of field problems in continuum physics: proceedings of a Symposium in applied mathematics of the American Mathematical Society and the Society for Industrial and Applied Mathematics held in Durham, North Carolina, April 5–6, 1968*, volume 2 of *SIAM-AMS proceedings*. American Mathematical Society, Providence, RI, USA, 1970. ISBN 0-8218-1321-0. LCCN QA1 .A5217 n.s. v.2 1968; QC174.45.S96 1968.

Birkhoff:1936:LQM

[BvN36] Garrett Birkhoff and John von Neumann. The logic of quantum mechanics. *Annals of Mathematics (2)*, 37(4):823–843, October 1936. CODEN ANMAAH. ISSN 0003-486X (print), 1939-8980 (electronic). Reprinted in [Tau62, Paper 7].

Birkhoff:1962:ADI

[BVY62] Garrett Birkhoff, Richard S. Varga, and David Young. Alternating direction implicit methods. In Franz L. Alt and M. Rubinoff, editors, *Advances in Computers*, volume 3, pages 189–273. Academic Press, New York, USA, 1962. ISSN 0065-2458. URL `http://www.`

math.kent.edu/~varga/pub/paper_20.pdf.

Birkhoff:1939:CBA

[BW39] Garrett Birkhoff and Morgan Ward. A characterization of Boolean algebras. *Annals of Mathematics (2)*, 40(3):609–610, July 1939. CODEN ANMAAH. ISSN 0003-486X (print), 1939-8980 (electronic).

Birkhoff:1949:RJL

[BW49] Garrett Birkhoff and Philip M. Whitman. Representation of Jordan and Lie algebras. *Transactions of the American Mathematical Society*, 65(1): 116–136, January 1949. CODEN TAMTAM. ISSN 0002-9947 (print), 1088-6850 (electronic).

Birkhoff:1954:CAS

[BW54a] Garrett Birkhoff and John M. Walsh. Conical, axially symmetric flows. In *Publ. Sci. Tech. Ministère de l'Air*, pages 1–12. ????, ????, 1954. M'emoires sur la m'ecanique des fluides offerts à M. Dimitri P. Riabouchinsky.

Birkhoff:1954:NMS

[BW54b] Garrett Birkhoff and John M. Walsh. Note on maximum shock deflection. *Quarterly of Applied Mathematics*, 12(1): 83–86, April 1954. CODEN QAMAAY. ISSN 0033-569X (print), 1552-4485 (electronic).

Birkhoff:1961:NRT

[BW61] Garrett Birkhoff and Eugene P. (Eugene Paul) Wigner, editors. *Nuclear reactor theory: [proceedings of the 11th Symposium in Applied Mathematics of the American Mathematical Society held at the Hotel New Yorker, April 23–25, 1959]*, volume 11 of *Proceedings of Symposia in Applied Mathematics*. American Mathematical Society, Providence, RI, USA, 1961. ISSN 0160-7634. LCCN QC787.N8 S9 1959.

Birkhoff:1950:NQA

[BY50] Garrett Birkhoff and David M. Young. Numerical quadrature of analytic and harmonic functions. *Journal of Mathematics and Physics (MIT)*, 29(1–4):217–221, April 1950. CODEN JMPHA9. ISSN 0097-1421. URL https://onlinelibrary.wiley.com/doi/epdf/10.1002/sapm1950291217.

Birkhoff:1951:ECT

[BYZ51] G. Birkhoff, D. M. Young, and E. H. Zarantonello. Effective conformal transformation of smooth, simply connected domains. *Proceedings of the National Academy of Sciences of the United States of America*, 37(7):411–414, July 1, 1951. CODEN PNASA6. ISSN 0027-8424 (print), 1091-6490 (electronic). URL www.ncbi.nlm.nih.gov/pmc/articles/PMC1063389.

Birkhoff:1953:NMC

[BYZ53] G. Birkhoff, D. M. Young, and E. H. Zarantonello. Numerical methods in conformal mapping. In *Proceedings of Symposia in Applied Mathematics, Vol. IV, Fluid dynamics*, pages 117–140. McGraw-Hill, New York, NY, USA, 1953.

Birkhoff:1957:JWC

[BZ57] Garrett Birkhoff and E. H. Zarantonello. *Jets, Wakes, and Cavities*. Academic Press, New York, USA, 1957. xii + 353 pp.

Carroll:2004:BCC

[Car04] Joseph E. Carroll. Birkhoff's contraction coefficient. *Linear Algebra and its Applications*, 389(1):227–234, September 15, 2004. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Court:1934:PSAb

[CB34] N. A. Court and A. D. Bradley. Problems and solutions: Advanced problems: 3633. *American Mathematical Monthly*, 41 (8):527, October 1934. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). See also [Ann33].

Cavazos-Cadena:2003:ADB

[CC03] Rolando Cavazos-Cadena. An alternative derivation of Birkhoff's formula for the contraction coefficient of a positive matrix. *Linear Algebra and its Applications*, 375(1):291–297, December 1, 2003. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Costa:2008:DAB

[CdFM08] Liliana Costa, C. M. da Fonseca, and Enide Andrade Martins. The diameter of the acyclic Birkhoff polytope. *Linear Algebra and its Applications*, 428(7):1524–1537, April 1, 2008. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Costa:2009:FCA

[CdFM09] Liliana Costa, C. M. da Fonseca, and Enide Andrade Martins. Face counting on an Acyclic Birkhoff polytope. *Linear Algebra and its Applications*, 430(4):1216–1235, February 1, 2009. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Carnicer:2000:BHB

[CG00] J. M. Carnicer and M. Gasca. Bivariate Hermite–Birkhoff polynomial interpolation with asymptotic conditions. *Journal of Computational and Applied Mathematics*, 119 (1–2):69–79, July 1, 2000. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S037704270000371X`.

Choirat:2003:FVB

[CHS03] Christine Choirat, Christian Hess, and Raffaello Seri.

A functional version of the Birkhoff ergodic theorem for a normal integrand: a variational approach. *Annals of Probability*, 31(1):63–92, January 2003. CODEN APBYAE. ISSN 0091-1798 (print), 2168-894X (electronic). URL `http://projecteuclid.org/euclid.aop/1046294304`.

Casas:2007:PBW

[CIL07] José Manuel Casas, Manuel A. Insua, and Manuel Ladra. Poincaré–Birkhoff–Witt theorem for Leibniz n. *Journal of Symbolic Computation*, 42(11–12):1052–1065, November/December 2007. CODEN JSYCEH. ISSN 0747-7171 (print), 1095-855X (electronic).

Chalmers:1974:RRH

[CJMT74] B. L. Chalmers, D. J. Johnson, F. T. Metcalf, and G. D. Taylor. Remarks on the rank of Hermite–Birkhoff interpolation. *SIAM Journal on Numerical Analysis*, 11(2):254–259, April 1974. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Cui:2015:SMB

[CL15] Kai Cui and Na Lei. Stable monomial basis for multivariate Birkhoff interpolation problems. *Journal of Computational and Applied Mathematics*, 277(??):162–170, March 15, 2015. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0377042714003914`.

Chang:2001:LBB

[CLL01] Cheng-Shang Chang, Duan-Shin Lee, and Ching-Ming Lien. Load balanced Birkhoff–von Neumann switches with resequencing. *ACM SIGMETRICS Performance Evaluation Review*, 29(3):23–24, December 2001. CODEN ???? ISSN 0163-5999 (print), 1557-9484 (electronic).

Chai:2011:PIS

[CLLX11] Junjie Chai, Na Lei, Ying Li, and Peng Xia. The proper interpolation space for multivariate Birkhoff interpolation. *Journal of Computational and Applied Mathematics*, 235(10):3207–3214, March 15, 2011. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0377042711000070`.

Cui:2014:BNT

[CLN14] Lu-Bin Cui, Wen Li, and Michael K. Ng. Birkhoff–von Neumann theorem for multistochastic tensors. *SIAM Journal on Matrix Analysis and Applications*, 35(3):956–973, ???? 2014. CODEN SJMAEL. ISSN 0895-4798 (print), 1095-7162 (electronic).

Chang:2006:PGR

[CLY06] Cheng-Shang Chang, Duan-Shin Lee, and Chi-Yao Yue. Providing guaranteed rate services in the load balanced Birkhoff–von Neumann switches. *IEEE/ACM Transactions on Networking*, 14 (3):644–656, 2006. CODEN IEANEP. ISSN 1063-6692 (print), 1558-2566 (electronic).

Costa:2010:FFT

[CM10] Liliana Costa and Enide Andrade Martins. Faces of faces of the tridiagonal Birkhoff polytope. *Linear Algebra and its Applications*, 432(6):1384–1404, March 1, 2010. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Costabile:2017:CBL

[CN17] Francesco A. Costabile and Anna Napoli. A class of Birkhoff–Lagrange-collocation methods for high order boundary value problems. *Applied Numerical Mathematics: Transactions of IMACS*, 116(??):129–140, June 2017. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0168927416302392`.

Corry:1996:MAR

[Cor96] Leo Corry. *Modern Algebra and the Rise of Mathematical Structures*, volume 0017 of *Science networks*. Birkhäuser, Cambridge, MA, USA; Berlin, Germany; Basel, Switzerland, 1996. ISBN 0-7167-1376-4, 0-8176-5311-2 (Boston), 3-7643-5311-2 (Basel). xviii + 452 pp. LCCN QA151 .C67 1996.

Chorianopoulos:2011:BJA

[CP11] Christos Chorianopoulos and Panayiotis Psarrakos. Birkhoff–James approximate orthogonality sets and numerical ranges. *Linear Algebra and its Applications*, 434(9):2089–2108, May 1, 2011. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Chorianopoulos:2013:CBJ

[CP13] Christos Chorianopoulos and Panayiotis J. Psarrakos. On the continuity of Birkhoff–James-orthogonality sets. *Linear Multilinear Algebra*, 61(11): 1447–1454, 2013. CODEN LNMLAZ. ISSN 0308-1087 (print), 1563-5139 (electronic).

Chen:2019:BNT

[CQCZ19] Haibin Chen, Liqun Qi, Louis Caccetta, and Guanglu Zhou. Birkhoff–von Neumann theorem and decomposition for doubly stochastic tensors. *Linear Algebra and its Applications*, 583(??):119–133, December 15, 2019. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S002437951930374X`.

Chekanov:2000:GSC

[CRUV00] N. A. Chekanov, V. A. Rostovtsev, Y. Uwano, and S. I. Vinitsky. GITA $^{-1}$: a symbolic computing program for an inverse problem of the Birkhoff–Gustavson normal form expansion. *Computer Physics Communications*, 126(1–2):47–50, April 2000. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0010465599004919`.

Clapp:1980:BTD

[CS80] M. H. Clapp and R. C. Shiflett. A Birkhoff theorem for doubly stochastic matrices with vector entries. *Studies in Applied Mathematics*, 62(3):273–279, June 1980. CODEN SAPMB6. ISSN 0022-2526 (print), 1467-9590 (electronic). URL `https://onlinelibrary.wiley.com/doi/epdf/10.1002/sapm1980623273`.

Cavaretta:1980:HBI

[CSV80] A. S. Cavaretta, Jr., A. Sharma, and R. S. Varga. Hermite–Birkhoff interpolation in the n-th roots of unity. *Transactions of the American Mathematical Society*, 259(2):621–628, June 1980. CODEN TAMTAM. ISSN 0002-9947 (print), 1088-6850 (electronic). URL `http://www.math.kent.edu/~varga/pub/paper_118.pdf`.

Cuthill:1963:BRB

[Cut63] Elizabeth Cuthill. Book review: *Proceedings of Symposia in Applied Mathematics, vol. XI, Nuclear Reactor Theory*, by G. Birkhoff and E. P. Wigner. *Mathematics of Computation*, 17(84):475–476, October 1963. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `http://www.jstor.org/stable/2004032`.

Dehghan:2013:TNS

[DAE13] Mehdi Dehghan, S. Aryanmehr, and M. R. Eslahchi. A technique for the numerical solution of initial-value problems based on a class of Birkhoff-type interpolation method. *Journal of Computational and Applied Mathematics*, 244(??):125–139, May 15, 2013. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0377042712005067`.

deBruin:2005:PTB

[dBD05] M. G. de Bruin and H. P. Dikshit. Pál-type Birkhoff interpolation on nonuniformly distributed points. *Numerical Algorithms*, 40(1):1–16, September 2005. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=1017-`

1398&volume=40&issue=1&spage=1.

deBruin:2001:BIN

[dBS01] Marcel G. de Bruin and A. Sharma. Birkhoff interpolation on nonuniformly distributed roots of unity II. *Journal of Computational and Applied Mathematics*, 133(1–2):295–303, August 1, 2001. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0377042700006464.

Durkovic:2018:BNS

[DC18] Srdjan Durkovic and Zoran Cica. Birkhoff–von Neumann switch based on greedy scheduling. *IEEE Computer Architecture Letters*, 17(1):13–16, January/June 2018. CODEN ???? ISSN 1556-6056 (print), 1556-6064 (electronic).

DeVos:2016:BTU

[DD16a] Alexis De Vos and Stijn De Baerdemacker. The Birkhoff theorem for unitary matrices of prime dimension. *Linear Algebra and its Applications*, 493(??):455–468, March 15, 2016. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0024379515007156.

DellAccio:2016:CHB

[DD16b] F. Dell'Accio and F. Di Tommaso. Complete Hermite–Birkhoff interpolation on scattered data by combined Shepard operators. *Journal of Computational and Applied Mathematics*, 300(??):192–206, July 2016. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0377042715006287.

DeVos:2019:BTU

[DD19] Alexis De Vos and Stijn De Baerdemacker. The Birkhoff theorem for unitary matrices of prime-power dimension. *Linear Algebra and its Applications*, 578:27–52, October 1, 2019. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL https://www.sciencedirect.com/science/article/pii/S0024379519302095.

DeBaerdemacker:2017:BTU

[DDCY17] Stijn De Baerdemacker, Alexis De Vos, Lin Chen, and Li Yu. The Birkhoff theorem for unitary matrices of arbitrary dimensions. *Linear Algebra and its Applications*, 514(??):151–164, February 1, 2017. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0024379516305134.

DellAccio:2018:RFH

[DDH18] Francesco Dell'Accio, Filomena Di Tommaso, and Kai Hormann. Reconstruction of a function from Hermite–Birkhoff data. *Applied Mathematics and Computation*, 318(??):51–69, February 1, 2018. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0096300317303727`.

deBruin:2000:BIU

[dDS00] M. G. de Bruin, H. P. Dikshit, and A. Sharma. Birkhoff interpolation on unity and on Möbius transform of the roots of unity. *Numerical Algorithms*, 23(1):115–125, March 2000. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `http://ipsapp007.kluweronline.com/content/getfile/5058/24/6/abstract.htm`; `http://ipsapp007.kluweronline.com/content/getfile/5058/24/6/fulltext.pdf`.

DeWit:2003:PBW

[De 03] David De Wit. A Poincaré–Birkhoff–Witt commutator lemma for $\mathrm{U}_q[\mathrm{gl}(m|n)]$. *Journal of Mathematical Physics*, 44(1):315–327, January 2003. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427.

Dufosse:2018:FNB

[DKPU18] Fanny Dufossé, Kamer Kaya, Ioannis Panagiotas, and Bora Uçar. Further notes on Birkhoff–von Neumann decomposition of doubly stochastic matrices. *Linear Algebra and its Applications*, 554(??):68–78, October 1, 2018. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0024379518302568`.

DeCarvalho:2020:BNG

[DKWL20] Marcelo H. De Carvalho, Nishad Kothari, Xiumei Wang, and Yixun Lin. Birkhoff–von Neumann graphs that are PM-compact. *SIAM Journal on Discrete Mathematics*, 34(3):1769–1790, ???? 2020. CODEN SJDMEC. ISSN 0895-4801 (print), 1095-7146 (electronic).

Dyn:1982:CBI

[DLR82] N. Dyn, G. G. Lorentz, and S. D. Riemenschneider. Continuity of the Birkhoff interpolation. *SIAM Journal on Numerical Analysis*, 19(3):507–509, June 1982. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Douglas:1956:NSH

[DR56] J. Douglas, Jr. and H. H. Rachford, Jr. On the numerical solution of heat conduction problems in two or

three space variables. *Transactions of the American Mathematical Society*, 82(2):421–439, July 1956. CODEN TAMTAM. ISSN 0002-9947 (print), 1088-6850 (electronic).

Dunkel:1935:PSAb

[DS35] Otto Dunkel and E. P. Starke. Problems and solutions: Advanced problems: Solutions: 3677. *American Mathematical Monthly*, 42(9):572–577, November 1935. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). Part 1. See also [Esc34].

deBruin:2000:BIN

[dS00] Marcel G. de Bruin and A. Sharma. Birkhoff interpolation on non-uniformly distributed roots of unity. *Numerical Algorithms*, 25(1–4):123–138, September 2000. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `http://ipsapp007.kluweronline.com/content/getfile/5058/3/4/abstract.htm`; `http://ipsapp007.kluweronline.com/content/getfile/5058/3/4/fulltext.pdf`. Mathematical journey through analysis, matrix theory and scientific computation (Kent, OH, 1999).

Dufosse:2016:NBN

[DU16] Fanny Dufossé and Bora Uçar. Notes on Birkhoff–von Neumann decomposition of doubly stochastic matrices. *Linear Algebra and its Applications*, 497(??):108–115, May 15, 2016. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0024379516001257`.

Dunkel:1935:PSAa

[Dun35] Otto Dunkel. Problems and solutions: Advanced problems: 3637. *American Mathematical Monthly*, 42(3):178–180, March 1935. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). See also [Ann33].

Dyn:1984:CHB

[Dyn84] Nira Dyn. Composite Hermite–Birkhoff quadrature formulas of Gaussian type. *Mathematics of Computation*, 43(168):535–541, October 1984. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic).

Escott:1935:PSA

[ERG+35] E. B. Escott, F. D. Rigby, Hansraj Gupta, E. E. Strock, and Morgan Ward. Problems and solutions: Advanced problems: 3673. *American Mathematical Monthly*, 42(8):516–518, October 1935. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). See also [Esc34].

Escott:1934:PSA

[Esc34] E. B. Escott. Problems and

solutions: Advanced problems: Problems for solution: 3673. *American Mathematical Monthly*, 41(4):269–270, April 1934. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). See also [BRW35, DS35, ERG+35, GW35, GL35, JS35].

Ferguson:1974:SCM

[Fer74] David R. Ferguson. Sign changes and minimal support properties of Hermite–Birkhoff splines with compact support. *SIAM Journal on Numerical Analysis*, 11(4):769–779, September 1974. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Fernandes:2015:CDV

[Fer15] Rosário Fernandes. Computing the degree of a vertex in the skeleton of acyclic Birkhoff polytopes. *Linear Algebra and its Applications*, 475(??):119–133, June 15, 2015. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0024379515000877`.

Frank:1963:SPR

[FGK+63] Ph. Frank, S. Goldstein, M. Kac, W. Prager, G. Szegő, and G. Birkhoff, editors. *Selected papers of Richard von Mises. Vol. I: Geometry, mechanics, analysis.* American Mathematical Society, Providence, RI, USA, 1963. xxiii + 626 pp.

Faou:2010:BNFa

[FGP10a] Erwan Faou, Benoît Grébert, and Eric Paturel. Birkhoff normal form for splitting methods applied to semilinear Hamiltonian PDEs. Part I. Finite-dimensional discretization. *Numerische Mathematik*, 114(3): 429–458, January 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=114&issue=3&spage=429`.

Faou:2010:BNFb

[FGP10b] Erwan Faou, Benoît Grébert, and Eric Paturel. Birkhoff normal form for splitting methods applied to semilinear Hamiltonian PDEs. Part II. Abstract splitting. *Numerische Mathematik*, 114(3): 459–490, January 2010. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0029-599X&volume=114&issue=3&spage=459`.

Finden:2008:ETU

[Fin08] W. F. Finden. An error term and uniqueness for Hermite–Birkhoff interpolation involving only function values and/or first derivative val-

ues. *Journal of Computational and Applied Mathematics*, 212(1):1–15, February 15, 2008. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0377042706007072`.

Frankel:1950:CRI

[Fra50] Stanley P. Frankel. Convergence rates of iterative treatments of partial differential equations. *Mathematical Tables and Other Aids to Computation*, 4(30):65–75, April 1950. CODEN MTTCAS. ISSN 0891-6837 (print), 2326-4853 (electronic).

Fabrykowski:1985:SBI

[FSZ85] J. Fabrykowski, A. Sharma, and H. Zassenhaus. Some Birkhoff interpolation problems on the roots of unity. *Linear Algebra and its Applications*, 65(??):1–23, February 1985. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0024379585900849`.

G:1968:BRD

[G.68] W. G. Book review: Donald Greenspan, editor, *Numerical Solutions of Nonlinear Differential Equations*, John Wiley & Sons, Inc., New York, 1966, x + 347 pp. *Mathematics of Computation*, 22(104): 896–898, October 1968. CODEN MCMPAF. ISSN 0025-5718 (print), 1088-6842 (electronic). URL `https://doi.org/10.2307/2004598`.

Gaina:2017:BSC

[Gai17] Daniel Gaina. Birkhoff style calculi for hybrid logics. *Formal Aspects of Computing*, 29 (5):805–832, September 2017. CODEN FACME5. ISSN 0934-5043 (print), 1433-299X (electronic). URL `http://link.springer.com/article/10.1007/s00165-016-0414-y`.

Garabedian:1965:AFP

[Gar65] Henry L. Garabedian, editor. *Approximation of Functions (Proceedings of the Symposium on Approximation of Functions, General Motors Research Laboratories, Warren, Michigan, 1964)*. Elsevier, Amsterdam, The Netherlands, 1965. LCCN ????

Grattan-Guinness:1975:BRMa

[GG75] I. Grattan-Guinness. Book review: Mathematics: A Source Book in Classical Analysis. Ed. by G. Birkhoff, with the assistance of U. Merzbach. Cambridge, Mass: Harvard University Press, 1973. Pp. xii + 470. £12.50. *British Journal for the History of Science*, 8 (2):176–177, July 1975. CODEN BJHSAT. ISSN 0007-0874 (print), 1474-001X (electronic). URL `http://www.jstor.org/stable/4025644`.

Girelli:2004:ABD

[GKM04] Florian Girelli, Thomas Krajewski, and Pierre Martinetti. An algebraic Birkhoff decomposition for the continuous renormalization group. *Journal of Mathematical Physics*, 45(12):4679–4697, December 2004. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL `http://jmp.aip.org/resource/1/jmapaq/v45/i12/p4679_s1`.

Grossman:1935:PSAc

[GL35] H. Grossman and Harry Langman. Problems and solutions: Advanced problems: 3675. *American Mathematical Monthly*, 42(8):521–522, October 1935. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). See also [Esc34].

Gladwell:1969:SEP

[Gla69] Ian Gladwell. Some extensions of a paper by Birkhoff and Priver. *SIAM Journal on Numerical Analysis*, 6(2):294–298, June 1969. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Gasca:1990:SBH

[GM90] M. Gasca and J. J. Martínez. On the solvability of bivariate Hermite–Birkhoff interpolation problems. *Journal of Computational and Applied Mathematics*, 32(1–2):77–82, November 26, 1990. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/037704279090418Y`.

Gasca:1992:BHB

[GM92] Mariano Gasca and José J. Martínez. Bivariate Hermite–Birkhoff interpolation and Vandermonde determinants. *Numerical Algorithms*, 3(1–4):193–199, December 1992. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). Extrapolation and rational approximation (Puerto de la Cruz, 1992).

Goldblatt:2001:WCA

[Gol01] Robert Goldblatt. What is the coalgebraic analogue of Birkhoff's variety theorem? *Theoretical Computer Science*, 266(1–2):853–886, September 6, 2001. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic). URL `http://www.elsevier.nl/gej-ng/10/41/16/216/27/54/abstract.html`; `http://www.elsevier.nl/gej-ng/10/41/16/216/27/54/article.pdf`.

Ganikhodzhaev:2010:DSQ

[GS10] Rasul Ganikhodzhaev and Farruh Shahidi. Doubly stochastic quadratic operators and Birkhoff's problem. *Linear Algebra and its Applications*, 432 (1):24–35, January 1, 2010.

CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Gumbel:1966:BRS

[Gum66] E. J. Gumbel. Book review: *Selected Papers of Richard von Mises. edited by Ph. Frank, S. Goldstein, M. Kac, W. Prager, G. Szegő, and G. Birkhoff. Volume I Geometry, Mechanics, Analysis. Volume II — Probability and Statistics*. American Mathematical Society. Providence, Rhode Island. *Econometrica*, 34(1):251–253, January 1966. CODEN ECMTA7. ISSN 0012-9682. URL `http://www.jstor.org/stable/1909881`.

Gonzalez-Vega:1996:AQE

[GV96] Laureano Gonzalez-Vega. Applying quantifier elimination to the Birkhoff interpolation problem. *Journal of Symbolic Computation*, 22(1):83–103, July 1996. CODEN JSYCEH. ISSN 0747-7171 (print), 1095-855X (electronic).

Gaines:1935:PSS

[GW35] R. E. Gaines and C. L. Weaver. Problems and solutions: Solutions: 3676. *American Mathematical Monthly*, 42(8):522–525, October 1935. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). See also [Esc34].

Guo:2008:DAB

[GZ08] Li Guo and Bin Zhang. Differential algebraic Birkhoff decomposition and the renormalization of multiple zeta values. *Journal of Number Theory*, 128(8):2318–2339, August 2008. CODEN JNUTA9. ISSN 0022-314X (print), 1096-1658 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0022314X07002144`.

Higham:1991:RKD

[Hig91] Desmond J. Higham. Runge–Kutta defect control using Hermite–Birkhoff interpolation. *SIAM Journal on Scientific and Statistical Computing*, 12(5):991–999, September 1991. CODEN SIJCD4. ISSN 0196-5204.

Hooker:1975:LAA

[Hoo75] C. A. Hooker, editor. *The logico-algebraic approach to quantum mechanics. Vol. I: Historical evolution*, volume 5 of *Univ. West. Ont. Ser. Philos. Sci.* D. Reidel Publishing Company, Dordrecht, 1975. ISSN 1566-659X.

Horndeski:1978:BTM

[Hor78] Gregory Walter Horndeski. Birkhoff's theorem and magnetic monopole solutions for a system of generalized Einstein–Maxwell field equations. *Journal of Mathematical Physics*, 19(3):668–674, March 1978. CODEN JMAPAQ. ISSN

0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL http://jmp.aip.org/resource/1/jmapaq/v19/i3/p668_s1.

Howlett:1962:BRB

[How62] J. Howlett. Book review: *Proceedings of Symposia in Applied Mathematics, vol. XI, Nuclear Reactor Theory*, by G. Birkhoff and E. P. Wigner. *Mathematical Gazette*, 46(357): 248–250, October 1962. CODEN MAGAAS. ISSN 0025-5572 (print), 2056-6328 (electronic). URL http://www.jstor.org/stable/3614048.

Hageman:1981:AIM

[HY81] Louis A. Hageman and David M. Young. *Applied Iterative Methods*. Computer Science and Applied Mathematics, Editor: Werner Rheinboldt. Academic Press, New York, USA, 1981. ISBN 0-12-313340-8. xvii + 386 pp. LCCN QA297.8 .H34 1981.

Johnson:1960:AGB

[JDM60] Diane M. Johnson, A. L. Dulmage, and N. S. Mendelsohn. On an algorithm of G. Birkhoff concerning doubly stochastic matrices. *Canadian mathematical bulletin = Bulletin canadien de mathématiques*, 3(??): 237–242, ???? 1960. CODEN CMBUA3. ISSN 0008-4395 (print), 1496-4287 (electronic).

Jetter:1982:NCG

[Jet82] Kurt Jetter. A new class of Gaussian quadrature formulas based on Birkhoff type data. *SIAM Journal on Numerical Analysis*, 19(5):1081–1089, October 1982. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Jetter:1987:UGB

[Jet87] Kurt Jetter. Uniqueness of Gauss–Birkhoff quadrature formulas. *SIAM Journal on Numerical Analysis*, 24(1):147–154, February 1987. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Jiang:1995:NKB

[Jia95] Tianzi Jiang. On a new kind of Birkhoff type trigonometric interpolation. *BIT Numerical Mathematics*, 35(4):540–547, December 1995. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL http://www.mai.liu.se/BIT/contents/bit35.html; http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=35&issue=4&spage=540.

Jones:1935:PSAb

[JS35] B. W. Jones and E. E. Strock. Problems and solutions: Advanced problems: Solutions: 3678. *American Mathematical Monthly*, 42(9):577–579, November 1935. CODEN AMMYAE. ISSN 0002-9890

(print), 1930-0972 (electronic). Part 1. See also [Esc34].

Jiao:2016:WCF

[JWH16] Yujian Jiao, Li-Lian Wang, and Can Huang. Well-conditioned fractional collocation methods using fractional Birkhoff interpolation basis. *Journal of Computational Physics*, 305(??):1–28, January 15, 2016. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0021999115006932`.

Kaluza:1993:PBG

[Kal93] Matjaz Kaluza. Program for Birkhoff–Gustavson normal form for N degrees of freedom — BIRKHOFF 1.2. *Computer Physics Communications*, 74(3):441–449, March 1993. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0010465593900258`.

Kamphorst:2005:FBC

[KdC05] Sylvie Oliffson Kamphorst and Sônia Pinto de Carvalho. The first Birkhoff coefficient and the stability of 2-periodic orbits on billiards. *Experimental Mathematics*, 14(3): 299–306, ???? 2005. CODEN ???? ISSN 1058-6458 (print), 1944-950X (electronic). URL `http://projecteuclid.org/euclid.em/1128371755`.

Kresic-Juric:2006:BFP

[KJ06] Sasa Kresić-Jurić. On the Birkhoff factorization problem for the Heisenberg magnet and nonlinear Schrödinger equations. *Journal of Mathematical Physics*, 47(6):063501, June 2006. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL `http://jmp.aip.org/resource/1/jmapaq/v47/i6/p063501_s1`.

Joji:2016:SRA

[kJ16] Du ko Joji. Some remarks about acyclic and tridiagonal Birkhoff polytopes. *Linear Algebra and its Applications*, 495(??):108–121, April 15, 2016. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0024379516000501`.

Kuang:1988:BTT

[KL88] Zhi Quan Kuang and Can Bin Liang. Birkhoff and Taub theorems generalized to metrics with conformal symmetries. *Journal of Mathematical Physics*, 29(11):2475–2478, November 1988. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL `http://jmp.aip.org/resource/1/jmapaq/v29/i11/p2475_s1`.

Kim:2019:BJO

[KL19] Sun Kwang Kim and Han Ju

Lee. The Birkhoff–James orthogonality of operators on infinite dimensional Banach spaces. *Linear Algebra and its Applications*, 582(??):440–451, December 1, 2019. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0024379519303520`.

Klotz:1972:RMA

[Klo72] E. Klotz. Reviews: *Modern Applied Algebra*, by Garrett Birkhoff and Thomas C. Bartee. *American Mathematical Monthly*, 79(5):529–530, May 1972. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Kane:2019:INB

[KLR19] Daniel Kane, Shachar Lovett, and Sankeerth Rao. The independence number of the Birkhoff polytope graph, and applications to maximally recoverable codes. *SIAM Journal on Computing*, 48(4):1425–1435, ???? 2019. CODEN SMJCAT. ISSN 0097-5397 (print), 1095-7111 (electronic).

Koppelman:1975:BRB

[Kop75] Elaine Koppelman. Book review: *A Source Book in Classical Analysis* by Garrett Birkhoff; Uta Merzbach. *Isis*, 66(2):284–285, June 1975. CODEN ISISA4. ISSN 0021-1753 (print), 1545-6994 (electronic). URL `http://www.jstor.org/stable/229444`.

Kincaid:1982:AIF

[KRYG82] David R. Kincaid, John R. Respess, David M. Young, and Roger G. Grimes. Algorithm 586: ITPACK 2C: A FORTRAN package for solving large sparse linear systems by adaptive accelerated iterative methods. *ACM Transactions on Mathematical Software*, 8(3):302–322, September 1982. CODEN ACMSCU. ISSN 0098-3500 (print), 1557-7295 (electronic).

Kong:2013:VIF

[KWM13] Xinlei Kong, Huibin Wu, and Fengxiang Mei. Variational integrators for forced Birkhoffian systems. *Applied Mathematics and Computation*, 225 (??):326–332, December 1, 2013. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0096300313010242`.

Langenhop:1963:RPP

[Lan63] C. E. Langenhop. Recent publications and presentations: *Ordinary Differential Equations*, by G. Birkhoff and G.-C. Rota. *American Mathematical Monthly*, 70(7):777–778, August/September 1963. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Lei:2011:FAM

[LCXL11] Na Lei, Junjie Chai, Peng Xia, and Ying Li. A fast algorithm for the multivariate Birkhoff interpolation problem. *Journal of Computational and Applied Mathematics*, 236(6):1656–1666, October 15, 2011. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0377042711005073`.

Lether:1976:BYQ

[Let76] Frank Lether. On Birkhoff–Young quadrature of analytical functions. *Journal of Computational and Applied Mathematics*, 2(2):81–84, June 1976. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0771050X76900127`.

Liang:1990:CBT

[Lia90] Can Bin Liang. Conformal Birkhoff and Taub theorems in higher dimensions. *Journal of Mathematical Physics*, 31(6):1464–1466, June 1990. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL `http://jmp.aip.org/resource/1/jmapaq/v31/i6/p1464_s1`.

Liebmann:1918:AEH

[Lie18] H. Liebmann. Die Angenaharte Ermittleung Harmonischer Functionen und Konformer Abbildungen. (German) [The hard determination of harmonic functions and conformal mappings]. *Sitzungsber., Akad. Wiss. Math. Phys. Kl.*, 47(??):385–416, ???? 1918.

Lim:2007:HPM

[Lim07] Yongdo Lim. Hilbert's projective metric on Lorenz cones and Birkhoff formula for Lorentzian compressions. *Linear Algebra and its Applications*, 423(2–3):246–254, June 1, 2007. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Liu:2018:SAH

[LIW18] Changying Liu, Arieh Iserles, and Xinyuan Wu. Symmetric and arbitrarily high-order Birkhoff–Hermite time integrators and their long-time behaviour for solving nonlinear Klein–Gordon equations. *Journal of Computational Physics*, 356(??):1–30, March 1, 2018. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0021999117308240`.

Lawson:2007:BCF

[LL07] Jimmie Lawson and Yongdo Lim. A Birkhoff contraction formula with applications to Riccati equations. *SIAM Journal on Control and Optimization*, 46(3):930–951, ???? 2007.

CODEN SJCODC. ISSN 0363-0129 (print), 1095-7138 (electronic).

Lewandowski:1986:APG

[LLL86] J. L. Lewandowski, C. L. Liu, and J. W. S. Liu. An algorithmic proof of a generalization of the Birkhoff–von Neumann theorem. *Journal of Algorithms*, 7(3):323–330, September 1986. CODEN JOALDV. ISSN 0196-6774 (print), 1090-2678 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0196677486900246`.

Lorentz:1982:ACB

[Lor82] G. G. Lorentz. The analytic character of the Birkhoff interpolation polynomials. *Canadian Journal of Mathematics = Journal canadien de mathématiques*, 34(??):765–768, ???? 1982. CODEN CJMAAB. ISSN 0008-414X (print), 1496-4279 (electronic).

Lorentz:1992:BPB

[Lor92a] Rudolph A. Lorentz. Basic properties of Birkhoff interpolation. *Lecture Notes in Mathematics*, 1516:9–22, 1992. CODEN LNMAA2. ISBN 3-540-55870-5 (print), 3-540-47300-9 (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). URL `http://link.springer.com/chapter/10.1007/BFb0088791/`.

Lorentz:1992:KIB

[Lor92b] Rudolph A. Lorentz. Kergin interpolation via Birkhoff interpolation. *Lecture Notes in Mathematics*, 1516:162–170, 1992. CODEN LNMAA2. ISBN 3-540-55870-5 (print), 3-540-47300-9 (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). URL `http://link.springer.com/chapter/10.1007/BFb0088801/`.

Lorentz:1992:MBI

[Lor92c] Rudolph A. Lorentz. *Multivariate Birkhoff Interpolation*, volume 1516 of *Lecture Notes in Mathematics*. Springer-Verlag, Berlin, Germany / Heidelberg, Germany / London, UK / etc., 1992. CODEN LNMAA2. ISBN 3-540-55870-5 (print), 3-540-47300-9 (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). x + 192 pp. LCCN QA3 .L28 no. 1516. URL `http://link.springer.com/book/10.1007/BFb0088788; http://www.springerlink.com/content/978-3-540-47300-8`.

Landau:1993:BTD

[LS93] L. J. Landau and R. F. Streater. On Birkhoff's theorem for doubly stochastic completely positive maps of matrix algebras. *Linear Algebra and its Applications*, 193:107–127, November 1, 1993. CODEN LAAPAW. ISSN 0024-

3795 (print), 1873-1856 (electronic).

Lutz:1979:BIM

[Lut79] Donald A. Lutz. Birkhoff invariants and meromorphic differential equations. *Lecture Notes in Mathematics*, 712:66–76, 1979. CODEN LNMAA2. ISBN 3-540-09250-1 (print), 3-540-35314-3 (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). URL `http://link.springer.com/chapter/10.1007/BFb0062816/`.

Liu:2013:LSP

[LY13] Junli Liu and Shilin Yang. Lusztig symmetries and Poincaré–Birkhoff–Witt basis for $wU^d_{r,s}(\mathrm{osp}(1|2n))$. *Journal of Mathematical Physics*, 54(12):121704, December 2013. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427.

Lorentz:1971:BI

[LZ71] G. G. Lorentz and K. L. Zeller. Birkhoff interpolation. *SIAM Journal on Numerical Analysis*, 8(1):43–48, March 1971. CODEN SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

MacLane:1998:GBJ

[Mac98] Saunders Mac Lane. Garrett Birkhoff (10 January 1911–22 November 1996). *Proceedings of the American Philosophical Society held at Philadelphia for promoting useful knowledge*, 142(4):646–649, December 1998. CODEN PAPCAA. ISSN 0003-049X (print), 2326-9243 (electronic). URL `https://www.jstor.org/stable/3152287`.

Majima:1984:SPR

[Maj84] Hideyuki Majima. Stokes phenomena and Riemann–Hilbert–Birkhoff problem. *Lecture Notes in Mathematics*, 1075:111–133, 1984. CODEN LNMAA2. ISBN 3-540-13375-5 (print), 3-540-38931-8 (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). URL `http://link.springer.com/chapter/10.1007/BFb0071554/`.

Marshall:1992:PBC

[Mar92] Murray Marshall. The Pierce–Birkhoff conjecture for curves. *Canadian Journal of Mathematics = Journal canadien de mathématiques*, 44(??):1262–1271, ???? 1992. CODEN CJMAAB. ISSN 0008-414X (print), 1496-4279 (electronic).

MarquesdeSa:2006:SSB

[Mar06] Eduardo Marques de Sá. Some subpolytopes of the Birkhoff polytope. *Electronic Journal of Linear Algebra*, 15(1):1–7, 2006. CODEN ???? ISSN 1081-3810 (print), 1537-9582 (electronic). URL `http://repository.uwyo.edu/ela/vol15/iss1/1`.

MacLane:1967:A

[MB67] Saunders Mac Lane and Garrett Birkhoff. *Algebra*. Macmillan Publishing Company, New York, NY, USA, 1967. xix + 598 pp.

MacLane:1970:ATS

[MB70] Saunders Mac Lane and Garrett Birkhoff. *Algèbre. Tome I: Structures fondamentales*, volume XXXV of *Cahiers Scientifiques [Scientific Reports]*. Gauthier-Villars et cie, Paris, France, 1970. xxiii + 408 pp. Traduit de l'anglais par J. Weil, Préface de J. Dieudonné.

MacLane:1971:ATI

[MB71] Saunders Mac Lane and Garrett Birkhoff. *Algèbre, Tome II: Les grands théorèmes*, volume XXXVI of *Cahiers Scientifiques [Scientific Reports]*. Gauthier-Villars et cie, Paris, France, 1971. xiv + 343 (+ loose errata) pp. Traduit de l'anglais par J. Weil.

MacLane:1972:ASD

[MB72] S. Mac Lane and G. Birkhoff. *Algèbre*. Gauthier-Villars et cie, Paris, France, 1972. xii + 220 pp. Solutions développées des exercises par J. Weil et J. Hocquemiller. 1re partie: Ensembles. Groupes. Anneaux. Corps.

MacLane:1973:ASD

[MB73] S. Mac Lane and G. Birkhoff. *Algèbre. Solutions développées des exercices par D. Allouch, A. Mezard, J.-C. Vaillant, J. Weil. 2ième partie: Algèbre linéaire*. Gauthier-Villars et cie, Paris, France, 1973. x + 233 pp.

MacLane:1976:ASD

[MB76] S. Mac Lane and G. Birkhoff. *Algèbre*. Gauthier-Villars et cie, Paris, France, 1976. 184 pp. Solutions développées des exercices par Charles DeLorme, Alain Mezard, Christine Lavit, Jean-Claude Raoult. 3e partie: Les grands théoremes.

MacLane:1979:A

[MB79] Saunders Mac Lane and Garrett Birkhoff. *Algebra*. Macmillan Publishing Company, New York, NY, USA, second edition, 1979. ISBN 0-02-374310-7. xv + 586 pp.

MacLane:1988:A

[MB88] Saunders Mac Lane and Garrett Birkhoff. *Algebra*. Chelsea Publishing Company, New York, NY, USA, third edition, 1988. ISBN 0-8284-0330-9. xx + 626 pp.

MacLane:1996:A

[MB96] Saunders Mac Lane and Garrett Birkhoff. *Algèbre*. Les Grands Classiques Gauthier-Villars. [Gauthier-Villars Great Classics]. Éditions Jacques Gabay, Paris, France, 1996. ISBN 2-87647-138-8. 737 pp. Et solutions développées des exercices. [With detailed

solutions of the exercises], Structures fondamentales. Les grands théorèmes. Théorie de Galois. [Fundamental structures. The major theorems. Galois theory], With a preface by J. Dieudonné.

McEwan:1993:CFG

[McE93] J. McEwan. A complex formulation of generalized Hamiltonian (Birkhoffian) theory. *Foundations of Physics*, 23(2): 313–327, February 1993. CODEN FNDPA4. ISSN 0015-9018 (print), 1572-9516 (electronic). URL `http://link.springer.com/article/10.1007/BF01883632`.

Milovanovic:2011:GBY

[MCS11] Gradimir V. Milovanović, Aleksandar S. Cvetković, and Marija P. Stanić. A generalized Birkhoff–Young–Chebyshev quadrature formula for analytic functions. *Applied Mathematics and Computation*, 218(3):944–948, October 1, 2011. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0096300311001652`. Special Issue in Honour of Hari M. Srivastava on his 70th birth anniversary.

Mewborn:1967:RAS

[Mew67] A. C. Mewborn. Reviews: *Algebra*, by Saunders Mac Lane and Garrett Birkhoff. *American Mathematical Monthly*, 74(10):1279, December 1967. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Metropolis:1980:HCT

[MHR80] Nicholas Metropolis, Jack Howlett, and Gian-Carlo Rota, editors. *A History of Computing in the Twentieth Century: a Collection of Essays*. Academic Press, New York, USA, 1980. ISBN 0-12-491650-3, 1-4832-9668-7 (e-book). LCCN QA75.5 .I63 1976. Original versions of these papers were presented at the International Research Conference on the History of Computing, held at the Los Alamos Scientific Laboratory, 10–15 June 1976.

Milovanovic:2017:GWB

[Mil17] Gradimir V. Milovanović. Generalized weighted Birkhoff–Young quadratures with the maximal degree of exactness. *Applied Numerical Mathematics: Transactions of IMACS*, 116(??):238–255, June 2017. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0168927416301064`.

Makela:1974:EFM

[MNS74] Matti Mäkelä, Olavi Nevanlinna, and Aarne H. Sipilä. Exponentially fitted multistep methods by generalized Hermite–Birkhoff inter-

polation. *BIT (Nordisk tidskrift for informationsbehandling)*, 14(4):437–451, December 1974. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=14&issue=4&spage=437`.

McCarthy:2002:BTC

[MOSZ02] Nicholas McCarthy, David Ogilvie, Ilya Spitkovsky, and Nahum Zobin. Birkhoff's theorem and convex hulls of Coxeter groups. *Linear Algebra and its Applications*, 347(1–3):219–231, May 15, 2002. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.elsevier.com/gej-ng/10/30/19/194/27/40/abstract.html`.

Maurya:2020:NHC

[MRYS20] Praveen K. Maurya, Manoj K. Rajpoot, Vivek S. Yadav, and Ankit Singh. New hybrid compact schemes for structured irregular meshes using Birkhoff polynomial basis. *Journal of Computational Physics*, 423 (??):Article 109808, December 15, 2020. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0021999120305829`.

Manca:1992:SCB

[MS92] V. Manca and A. Salibra. Soundness and completeness of the Birkhoff equational calculus for many-sorted algebras with possibly empty carrier sets. *Theoretical Computer Science*, 94(1):101–124, March 02, 1992. CODEN TCSCDI. ISSN 0304-3975 (print), 1879-2294 (electronic).

McCoid:2018:PSM

[MT18] Conor McCoid and Manfred R. Trummer. Preconditioning of spectral methods via Birkhoff interpolation. *Numerical Algorithms*, 79(2):555–573, October 2018. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic).

Muhlbach:1981:AAH

[Müh81] G. Mühlbach. An algorithmic approach to Hermite–Birkhoff interpolation. *Numerische Mathematik*, 37(3): 339–347, July 1981. CODEN NUMMA7. ISSN 0029-599X (print), 0945-3245 (electronic).

Moslehian:2017:COB

[MZ17] Mohammad Sal Moslehian and Ali Zamani. Characterizations of operator Birkhoff–James orthogonality. *Canadian mathematical bulletin = Bulletin canadien de mathématiques*, 60 (4):816–829, December 2017. CODEN CMBUA3. ISSN 0008-4395 (print), 1496-4287 (electronic).

Nash:1990:HSC

[Nas90] Stephen G. Nash, editor. *A History of Scientific Computing*. ACM Press history series. Addison-Wesley and ACM Press, Addison-Wesley and New York, NY 10036, USA, 1990. ISBN 0-201-50814-1. xix + 359 pp. LCCN QA76.17 .H59 1990.

Nguyen-Ba:2016:VSH

[NB16] Truong Nguyen-Ba. On variable step Hermite–Birkhoff solvers combining multistep and 4-stage DIRK methods for stiff ODEs. *Numerical Algorithms*, 71(4): 855–888, April 2016. CODEN NUALEG. ISSN 1017-1398 (print), 1572-9265 (electronic). URL `http://link.springer.com/article/10.1007/s11075-015-0027-1`.

Nguyen-Ba:2010:OSS

[NBBKV10] Truong Nguyen-Ba, Vladan Bozic, Emmanuel Kengne, and Rémi Vaillancourt. A one-step 7-stage Hermite–Birkhoff–Taylor ODE solver of order 11. *Journal of Computational and Applied Mathematics*, 234(1):192–208, May 1, 2010. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0377042709008231`.

Nguyen-Ba:2009:OSS

[NBHYV09] Truong Nguyen-Ba, Han Hao, Hemza Yagoub, and Rémi Vaillancourt. One-step 5-stage Hermite–Birkhoff–Taylor ODE solver of order 12. *Applied Mathematics and Computation*, 211(2):313–328, May 15, 2009. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0096300309000770`.

Nguyen-Ba:2012:SSP

[NBNTG12] Truong Nguyen-Ba, Huong Nguyen-Thu, and Thierry Giordano. Strong-stability-preserving 7-stage Hermite–Birkhoff time-discretization methods. *Journal of Scientific Computing*, 50(1):63–90, January 2012. CODEN JSCOEB. ISSN 0885-7474 (print), 1573-7691 (electronic). URL `http://link.springer.com/article/10.1007/s10915-011-9473-7`; `http://link.springer.com/content/pdf/10.1007/s10915-011-9473-7`; `http://www.springerlink.com/openurl.asp?genre=article&issn=0885-7474&volume=50&issue=1&spage=63-90`.

Nguyen-Ba:2011:SSP

[NBNTGV11] Truong Nguyen-Ba, Huong Nguyen-Thu, Thierry Giordano, and Rémi Vaillancourt. Strong-stability-preserving 3-stage Hermite–Birkhoff time-discretization methods. *Applied Numerical Mathematics: Transactions of IMACS*, 61(4):

487–500, April 2011. CODEN ANMAEL. ISSN 0168-9274 (print), 1873-5460 (electronic).

Nguyen-Ba:2008:HBO

[NBSV08] Truong Nguyen-Ba, Philip W. Sharp, and Rémi Vaillancourt. Hermite–Birkhoff–Obrechkoff four-stage four-step ODE solver of order 14 with quantized step size. *Journal of Computational and Applied Mathematics*, 222 (2):608–621, December 15, 2008. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0377042707006358`.

Nikolaev:1996:DQB

[Nik96] A. S. Nikolaev. On the diagonalization of quantum Birkhoff–Gustavson normal form. *Journal of Mathematical Physics*, 37(6):2643–2661, June 1996. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427.

Nishi:1979:EPJ

[Nis79] Akihiro Nishi. An elementary proof of Johnson–Dulmage–Mendelsohn's refinement of Birkhoff's theorem on doubly stochastic matrices. *Canadian mathematical bulletin = Bulletin canadien de mathématiques*, 22(1):81–86, March 1979. CODEN CMBUA3. ISSN 0008-4395 (print), 1496-4287 (electronic).

Nguyen-Thu:2014:SSP

[NTNBV14] Huong Nguyen-Thu, Truong Nguyen-Ba, and Rémi Vaillancourt. Strong-stability-preserving, Hermite–Birkhoff time-discretization based on k step methods and 8-stage explicit Runge–Kutta methods of order 5 and 4. *Journal of Computational and Applied Mathematics*, 263(??):45–58, June 2014. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0377042713006328`.

Ore:1937:PSA

[ØB37] Øystein Øre and M. F. Becker. Problems and solutions: Advanced problems: 3638. *American Mathematical Monthly*, 44 (6):395–397, June/July 1937. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). See also [Ann33].

Paul:2019:SBJ

[PMW19] Kallol Paul, Arpita Mal, and Pawel Wójcik. Symmetry of Birkhoff–James orthogonality of operators defined between infinite dimensional Banach spaces. *Linear Algebra and its Applications*, 563(??):142–153, February 15, 2019. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0024379518305081`.

Peaceman:1955:NSP

[PR55] D. W. Peaceman and H. H. Rachford, Jr. The numerical solution of parabolic and elliptic differential equations. *Journal of the Society for Industrial and Applied Mathematics*, 3(1):28–41, March 1955. CODEN JSIMAV. ISSN 0368-4245 (print), 1095-712X (electronic).

Paul:2016:BJO

[PSG16] K. Paul, D. Sain, and P. Ghosh. Birkhoff–James orthogonality and smoothness of bounded linear operators. *Linear Algebra and its Applications*, 506(??):551–563, October 1, 2016. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0024379516302415`.

Paul:2018:ABJ

[PSM18] Kallol Paul, Debmalya Sain, and Arpita Mal. Approximate Birkhoff–James orthogonality in the space of bounded linear operators. *Linear Algebra and its Applications*, 537(??):348–357, January 15, 2018. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0024379517305773`.

Qiu:2023:SCD

[QQ23] Zhiping Qiu and Yu Qiu. Symplectic central difference scheme for quasi-linear autonomous Birkhoffian systems. *Applied Mathematics and Computation*, 440(??): ??, March 1, 2023. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0096300322007329`.

Rouillier:2001:SBI

[RES01] Fabrice Rouillier, Mohab Safey El Din, and Éric Schost. Solving the Birkhoff interpolation problem via the critical point method: an experimental study. *Lecture Notes in Computer Science*, 2061:26–40, 2001. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic). URL `http://link.springer-ny.com/link/service/series/0558/bibs/2061/20610026.htm`; `http://link.springer-ny.com/link/service/series/0558/papers/2061/20610026.pdf`.

Reutenauer:1986:TPB

[Reu86] Christophe Reutenauer. Theorem of Poincarè–Birkhoff–Witt, logarithm and symmetric group representations of degrees equal to Stirling numbers. *Lecture Notes in Mathematics*, 1234:267–284, 1986. CODEN LNMAA2. ISBN 3-540-17207-6 (print), 3-540-47402-1 (e-book). ISSN 0075-8434 (print), 1617-9692 (electronic). URL `http://link.`

springer.com/chapter/10.1007/BFb0072520/.

Rajchel:2018:RHM

[RGZ18] Grzegorz Rajchel, Adam Gasiorowski, and Karol Zyczkowski. Robust Hadamard matrices, unistochastic rays in Birkhoff polytope and equi-entangled bases in composite spaces. *Mathematics in Computer Science*, 12(4):473–490, December 2018. CODEN ???? ISSN 1661-8270 (print), 1661-8289 (electronic). URL http://link.springer.com/content/pdf/10.1007/s11786-018-0384-y.pdf.

Richardson:1911:IAA

[Ric11] Lewis Fry Richardson. IX. The approximate arithmetical solution by finite differences of physical problems involving differential equations with an application to the stresses in a masonry dam. *Philosophical Transactions of the Royal Society A: Mathematical, Physical, and Engineering Sciences*, A210(459–470):307–357, January 1, 1911. CODEN PTRMAD, PTMSFB. ISSN 1364-503X (print), 1471-2962 (electronic). URL https://royalsocietypublishing.org/doi/10.1098/rsta.1911.0009.

Rosenbaum:1934:PSSb

[RK34] J. Rosenbaum and L. M. Kelly. Problems and solutions: Solutions: 3634. *American Mathematical Monthly*, 41(8):527–528, October 1934. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic). See also [Ann33].

Rajchel-Mieldzioc:2022:AGS

[RMKPZ22] Grzegorz Rajchel-Mieldzioć, Kamil Korzekwa, Zbigniew Puchała, and Karol Zyczkowski. Algebraic and geometric structures inside the Birkhoff polytope. *Journal of Mathematical Physics*, 63(1):012202, January 2022. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427.

Rota:1987:SPA

[RO87] Gian-Carlo Rota and Joseph S. Oliveira, editors. *Selected Papers on Algebra and Topology by Garrett Birkhoff*. Contemporary Mathematicians. Birkhäuser, Cambridge, MA, USA; Berlin, Germany; Basel, Switzerland, 1987. ISBN 0-8176-3114-3 (Boston), 3-7643-3114-3 (Basel). xvii + 608 pp. LCCN QA251 .B4972 1987.

Roque:2011:STP

[Roq11] Tatiana Roque. Stability of trajectories from Poincaré to Birkhoff: approaching a qualitative definition. *Archive for History of Exact Sciences*, 65(3):295–342, May 2011. CODEN AHESAN. ISSN 0003-9519 (print), 1432-0657 (electronic). URL http://www.springerlink.com/openurl.asp?genre=article&issn=??

??&volume=65&issue=3&spage=295.

Rouleux:2004:SCI

[Rou04] Michel Rouleux. Semi-classical integrability,hyperbolic flows and the Birkhoff normal form. *Canadian Journal of Mathematics = Journal canadien de mathématiques*, 56(??):1034–1067, ???? 2004. CODEN CJMAAB. ISSN 0008-414X (print), 1496-4279 (electronic).

Ross:2023:UBP

[RPB23] I. M. Ross, R. J. Proulx, and C. F. Borges. A universal Birkhoff pseudospectral method for solving boundary value problems. *Applied Mathematics and Computation*, 454(??):??, October 1, 2023. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0096300323002709.

Reyes:2021:MCS

[RR21] Armando Reyes and Camilo Rodríguez. The McCoy condition on skew Poincaré–Birkhoff–Witt extensions. *Communications in Mathematics and Statistics*, 9(1):1–21, March 2021. CODEN ???? ISSN 2194-6701 (print), 2194-671X (electronic). URL http://link.springer.com/article/10.1007/s40304-019-00184-5.

Riemenschneider:1981:BIR

[RS81] S. D. Riemenschneider and A. Sharma. Birkhoff interpolation at the n th roots of unity: convergence. *Canadian Journal of Mathematics = Journal canadien de mathématiques*, 33(??):362–371, ???? 1981. CODEN CJMAAB. ISSN 0008-414X (print), 1496-4279 (electronic).

Rutz:1998:TBT

[Rut98] Solange F. Rutz. Theorems of Birkhoff type in Finsler spaces. *Computer Physics Communications*, 115(2–3):300–315, December 2, 1998. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0010465598001209.

Saez:1985:STT

[SA85] D. Sáez and J. V. Arnau. On the scalar-tetradic theory A — the Birkhoff theorem: horizons and singularities. *Journal of Mathematical Physics*, 26(11):2902–2908, November 1985. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL http://jmp.aip.org/resource/1/jmapaq/v26/i11/p2902_s1.

Sarton:1937:EG

[Sar37] George Sarton. Évariste Galois. *Osiris*, 3(??):241–259, ???? 1937. CODEN

OSIRAX. ISSN 0369-7827 (print), 1933-8287 (electronic). URL http://www.jstor.org/stable/301589.

Saxon:1996:GBM

[Sax96] Wolfgang Saxon. Garrett Birkhoff, 85, mathematics theorist, dies. *New York Times*, ??(??):D–22, November 28, 1996. CODEN NYTIAO. ISSN 0362-4331 (print), 1542-667X, 1553-8095. URL https://www.nytimes.com/1996/11/28/us/garrett-birkhoff-85-mathematics-theorist-dies.html.

Schechter:1969:HBI

[Sch69] Murray Schechter. Hermite–Birkhoff interpolation problems with complex nodes. *American Mathematical Monthly*, 76(10):1119–1122, December 1969. CODEN AMMYAE. ISSN 0002-9890 (print), 1930-0972 (electronic).

Schultz:1981:EPS

[Sch81] Martin H. Schultz, editor. *Elliptic Problem Solvers: Proceedings of the Elliptic Problem Solvers Conference held in Santa Fe, NM, June 30–July 2, 1980*. Academic Press, New York, USA, 1981. ISBN 0-12-632620-7. LCCN QA377 .E53 1980.

Schlimm:2011:CRA

[Sch11] Dirk Schlimm. On the creative role of axiomatics. The discovery of lattices by Schröder, Dedekind, Birkhoff, and others. *Synthese*, 183(1):47–68, November 2011. CODEN SYNTAE. ISSN 0039-7857 (print), 1573-0964 (electronic). URL http://link.springer.com/article/10.1007/s11229-009-9667-9; http://link.springer.com/content/pdf/10.1007/s11229-009-9667-9.pdf.

Secrest:1962:BRB

[Sec62] E. Leigh Secrest. Book review: *Proceedings of the Eleventh Symposium in Applied Mathematics of the American Mathematical Society*, edited by Birkhoff and Wigner. *Mathematics Magazine*, 35(5):307–308, November 1962. CODEN MAMGA8. ISSN 0025-570X. URL http://www.jstor.org/stable/2688212.

Shevchenko:2008:SCB

[She08] I. I. Shevchenko. Symbolic computation of the Birkhoff normal form in the problem of stability of the triangular libration points. *Computer Physics Communications*, 178(9):665–672, May 1, 2008. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0010465507004924.

Shitov:2022:EPF

[Shi22] Yaroslav Shitov. On the extreme points of a family of matrices related to a

theorem of Birkhoff. *Linear Algebra and its Applications*, 632(??):233–240, January 1, 2022. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0024379521003499.

Shortley:1953:UTP

[Sho53] George Shortley. Use of Tschebyscheff polynomial operators in the numerical solution of boundary value problems. *Journal of Applied Physics*, 24(4):392–397, April 1953. CODEN JAPIAU. ISSN 0021-8979 (print), 1089-7550 (electronic), 1520-8850. URL https://pubs.aip.org/aip/jap/article/24/4/392/346540/Use-of-Tschebyscheff-Polynomial-Operators-in-the.

Singh:1986:BTT

[Sin86] Tarkeshwar Singh. Birkhoff-type theorem in self-creation cosmology. *Journal of Mathematical Physics*, 27(4):1074–1075, April 1986. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL http://jmp.aip.org/resource/1/jmapaq/v27/i4/p1074_s1.

Su:2015:SPN

[SL15] Hongling Su and Shengtai Li. Structure-preserving numerical methods for infinite-dimensional Birkhoffian systems. *Journal of Scientific Computing*, 65(1):196–223, October 2015. CODEN JSCOEB. ISSN 0885-7474 (print), 1573-7691 (electronic). URL http://link.springer.com/article/10.1007/s10915-014-9958-2; http://link.springer.com/content/pdf/10.1007/s10915-014-9958-2.pdf.

Su:2016:EDP

[SL16] Hongling Su and Shengtai Li. Energy/dissipation-preserving Birkhoffian multi-symplectic methods for Maxwell's equations with dissipation terms. *Journal of Computational Physics*, 311(??):213–240, April 15, 2016. CODEN JCTPAH. ISSN 0021-9991 (print), 1090-2716 (electronic). URL http://www.sciencedirect.com/science/article/pii/S0021999116000541.

Southwell:1946:RMT

[Sou46] R. V. (Richard Vynne) Southwell, F.R.S. *Relaxation Methods in Theoretical Physics: a Continuation of the Treatise, Relaxation Methods in Engineering Science*. Oxford University Press, Walton Street, Oxford OX2 6DP, UK, 1946. vi + 1 + 248 pp. LCCN QA431 .S6. Two volumes.

Sharma:1968:AHB

[SP68] A. Sharma and J. Prasad. On Abel–Hermite–Birkhoff interpolation. *SIAM Journal on Numerical Analysis*, 5(4):864–881, December 1968. CODEN

SJNAAM. ISSN 0036-1429 (print), 1095-7170 (electronic).

Sain:2015:ONA

[SPH15] Debmalya Sain, Kallol Paul, and Sourav Hait. Operator norm attainment and Birkhoff–James orthogonality. *Linear Algebra and its Applications*, 476(??):85–97, July 1, 2015. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0024379515001469`.

Saxena:1983:HBI

[SSZ83] R. B. Saxena, A. Sharma, and Z. Ziegler. Hermite–Birkhoff interpolation on roots of unity and Walsh equiconvergence. *Linear Algebra and its Applications*, 52/53(??):603–615, 1983. CODEN LAAPAW. ISSN 0024-3795 (print), 1873-1856 (electronic).

Servizi:1984:CPB

[ST84] G. Servizi and G. Turchetti. A computer program for the Birkhoff series of area preserving maps. *Computer Physics Communications*, 32(2):201–207, May 1984. CODEN CPHCBZ. ISSN 0010-4655 (print), 1879-2944 (electronic). URL `http://www.sciencedirect.com/science/article/pii/0010465584900717`.

Sun:2012:GBR

[SUB12] Hui Sun, David Uminsky, and Andrea L. Bertozzi. A generalized Birkhoff–Rott equation for two-dimensional active scalar problems. *SIAM Journal on Applied Mathematics*, 72(1):382–404, ???? 2012. CODEN SMJMAP. ISSN 0036-1399 (print), 1095-712X (electronic).

Sun:1991:ELB

[Sun91] Yong Sun. Equational logics (Birkhoff's method revisited) (*). *Lecture Notes in Computer Science*, 516:401–406, 1991. CODEN LNCSD9. ISSN 0302-9743 (print), 1611-3349 (electronic).

Stiefel:1965:PRT

[SW65] Eduard Stiefel and Jörg Waldvogel. Problème restreint des trois corps. Généralisation de la régularisation de Birkhoff pour le mouvement du mobile dans l'espace à trois dimensions. (French) [Restricted problem of three bodies. Generalization of the Birkhoff regularization for the motion of the mobile in three-dimensional space]. *Comptes rendus de l'Académie des sciences, Paris*, 260:805, 1965. ISSN 0001-4036 (print), 2419-6304 (electronic).

Simson:2008:ASB

[SW08] Daniel Simson and Mariusz Wojewódzki. An algorithmic solution of a Birkhoff

type problem. *Fundamenta Informaticae*, 83(4):389–410, December 2008. CODEN FUMAAJ. ISSN 0169-2968 (print), 1875-8681 (electronic).

Schleich:2010:SPB

[SW10] Kristin Schleich and Donald M. Witt. A simple proof of Birkhoff's theorem for cosmological constant. *Journal of Mathematical Physics*, 51(11):112502:1–112502:9, November 2010. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL `http://jmp.aip.org/resource/1/jmapaq/v51/i11/p112502_s1`.

Song:2015:NTB

[SZ15] Chuan-Jing Song and Yi Zhang. Noether theorem for Birkhoffian systems on time scales. *Journal of Mathematical Physics*, 56(10):102701, October 2015. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427.

Tarwater:1977:BTA

[Tar77] Dalton Tarwater, editor. *The bicentennial tribute to American mathematics 1776–1976. Papers presented at the fifty-nineth annual meeting of the Mathematical Association of America commemorating the nation's bicentennial*. Mathematical Association of America, Washington, DC, USA, 1977. URL `https://maa.org/sites/default/files/pdf/ABOUTMAA/History/Bicentennial_Tribute.pdf`.

Taub:1961:JNCa

[Tau61a] A. H. Taub, editor. *John von Neumann: Collected Works: Volume I: Logic, Theory of Sets and Quantum Mechanics*. Pergamon Press, New York, NY, USA, 1961. x + 654 pp. LCCN ???? See also volumes II–VI [Tau61b, Tau63a, Tau62, Tau63b, Tau63c].

Taub:1961:JNCb

[Tau61b] A. H. Taub, editor. *John von Neumann: Collected Works. Volume II: Operators, Ergodic Theory and Almost Periodic Functions in a Group*. Pergamon Press, New York, NY, USA, 1961. x + 568 pp. LCCN ???? See also volumes I, III–VI [Tau61a, Tau63a, Tau62, Tau63b, Tau63c].

Taub:1962:JNC

[Tau62] A. H. Taub, editor. *John von Neumann: Collected Works. Volume IV: Continuous Geometry and Other Topics*. Pergamon Press, New York, NY, USA, 1962. x + 516 pp. LCCN ???? See also volumes I–III, V–VI [Tau61a, Tau61b, Tau63a, Tau63b, Tau63c].

Taub:1961:JNCc

[Tau63a] A. H. Taub, editor. *John von Neumann: Collected Works. Volume III: Rings of Operators*. Pergamon Press, New York, NY, USA, 1961–1963.

ix + 574 pp. LCCN ???? See also volumes I–II, IV–VI [Tau61a, Tau61b, Tau62, Tau63b, Tau63c].

Taub:1963:JNCa

[Tau63b] A. H. Taub, editor. *John von Neumann: Collected Works. Volume V: Design of Computers, Theory of Automata and Numerical Analysis*. Pergamon Press, New York, NY, USA, 1963. ix + 784 pp. LCCN ???? See also volumes I–IV, VI [Tau61a, Tau61b, Tau63a, Tau62, Tau63c].

Taub:1963:JNCb

[Tau63c] A. H. Taub, editor. *John von Neumann: Collected Works. Volume VI: Theory of Games, Astrophysics, Hydrodynamics and Meteorology*. Pergamon Press, New York, NY, USA, 1963. x + 538 pp. LCCN ???? See also volumes I–V [Tau61a, Tau61b, Tau63a, Tau62, Tau63b].

Tinhofer:1986:GIT

[Tin86] G. Tinhofer. Graph isomorphism and theorems of Birkhoff type. *Computing: Archiv für Informatik und Numerik*, 36 (4):285–300, December 1986. CODEN CMPTA2. ISSN 0010-485X (print), 1436-5057 (electronic).

Ton-That:1999:PPC

[TTT99] Tuong Ton-That and Thai-Duong Tran. Poincaré's proof of the so-called Birkhoff–Witt theorem. *Revue d'Histoire des Math'ematiques = Journal for the History of Mathematics*, 5 (2):249–284 (2000), 1999. CODEN ???? ISSN 1262-022X (print), 1777-568X (electronic). URL `http://smf4.emath.fr/Publications/RevueHistoireMath/5/html/smf_rhm_5_249-284.html`.

Varga:1962:MIA

[Var62] Richard S. Varga. *Matrix Iterative Analysis*. Prentice-Hall, Upper Saddle River, NJ 07458, USA, 1962. xiii + 322 pp. LCCN QA263 .V3 1962.

Varga:1998:MGB

[Var98] Richard S. Varga. In memoriam: Garrett Birkhoff: January 10, 1911–November 11, 1996. *Journal of Approximation Theory*, 95(1):iv, 1–4, 1998. CODEN JAXTAZ. ISSN 0021-9045 (print), 1096-0430 (electronic).

Venezia:2002:CSI

[Ven02] Antonio Venezia. Un caso storico irrisolto: Le critiche di Popper alla logica quantistica di Birkhoff e von Neumann. (Italian) [a case of unsolved history: The criticism of Popper of the quantum logic of Birkhoff and von Neumann]. *Historia Mathematica*, 29(??): 138–156, ???? 2002. CODEN HIMADS. ISSN 0315-0860 (print), 1090-249X (electronic).

Valls:2021:BDR

[VIT21] Víctor Valls, George Iosifidis, and Leandros Tassiulas. Birkhoff's decomposition revisited: Sparse scheduling for high-speed circuit switches. *IEEE/ACM Transactions on Networking*, 29(6): 2399–2412, December 2021. CODEN IEANEP. ISSN 1063-6692 (print), 1558-2566 (electronic). URL `https://dl.acm.org/doi/10.1109/TNET.2021.3088327`.

Weiser:1987:BRE

[Wei87] Alan Weiser. Book review: *Elliptic Problem Solvers II* (Garrett Birkhoff and Arthur Schoenstadt, eds.). *SIAM Review*, 29(3):502–503, ???? 1987. CODEN SIREAD. ISSN 0036-1445 (print), 1095-7200 (electronic).

Wei:2021:CSP

[WHWW21] Chunqiu Wei, Lin He, Huibin Wu, and Hairui Wen. A class of structure-preserving discontinuous Galerkin variational time integrators for Birkhoffian systems. *Applied Mathematics and Computation*, 393 (??):Article 125750, March 15, 2021. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0096300320307037`.

Wang:2009:NBM

[WZD09] Xiaoying Wang, Shugong Zhang, and Tian Dong. Newton basis for multivariate Birkhoff interpolation. *Journal of Computational and Applied Mathematics*, 228 (1):466–479, June 1, 2009. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0377042708005128`.

Xia:2023:LMU

[XLD23] Peng Xia, Na Lei, and Tian Dong. On the linearization methods for univariate Birkhoff rational interpolation. *Applied Mathematics and Computation*, 445(??):??, May 15, 2023. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0096300322008992`.

Yagoub:2011:VSV

[YNBV11] Hemza Yagoub, Truong Nguyen-Ba, and Rémi Vaillancourt. Variable-step variable-order 3-stage Hermite–Birkhoff–Obrechkoff DDE solver of order 4 to 14. *Applied Mathematics and Computation*, 217 (24):10247–10255, August 15, 2011. CODEN AMHCBQ. ISSN 0096-3003 (print), 1873-5649 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0096300311006783`.

Young:1950:IMS

[You50] David M. Young. *Iterative*

methods for solving partial differential equations of elliptic type. Ph.D. dissertation, Harvard University, Cambridge, MA, USA, 1950.

Young:1953:RMS

[You53] David Young. On Richardson's method for solving linear systems with positive definite matrices. *Journal of Mathematics and Physics (MIT)*, 32(1–4):243–255, April 1953. CODEN JMPHA9. ISSN 0097-1421. URL `https://onlinelibrary.wiley.com/doi/epdf/10.1002/sapm1953321243`.

Young:1954:IMS

[You54] David Young. Iterative methods for solving partial difference equations of elliptic type. *Transactions of the American Mathematical Society*, 76(1): 92–111, January 1954. CODEN TAMTAM. ISSN 0002-9947 (print), 1088-6850 (electronic).

Young:1997:GBA

[You97] David M. Young. Garrett Birkhoff and applied mathematics. *Notices of the American Mathematical Society*, 44(11):1446–1450, December 1997. CODEN AMNOAN. ISSN 0002-9920 (print), 1088-9477 (electronic). URL `https://www.ams.org/journals/notices/199712/199712FullIssue.pdf`.

Ye:2017:DCB

[YZLH17] Tong Ye, Jinghui Zhang, Tony T. Lee, and Weisheng Hu. Deflection-compensated Birkhoff–von Neumann switches. *IEEE/ACM Transactions on Networking*, 25(2):879–895, April 2017. CODEN IEANEP. ISSN 1063-6692 (print), 1558-2566 (electronic).

Zegers:2005:BTL

[Zeg05] Robin Zegers. Birkhoff's theorem in Lovelock gravity. *Journal of Mathematical Physics*, 46(7):072502, July 2005. CODEN JMAPAQ. ISSN 0022-2488 (print), 1089-7658 (electronic), 1527-2427. URL `http://jmp.aip.org/resource/1/jmapaq/v46/i7/p072502_s1`.

Zhu:1997:BIP

[Zhu97] Ping Zhu. On Birkhoff interpolation by polynomials in several variables. *Journal of Computational and Applied Mathematics*, 85(2):263–270, November 12, 1997. CODEN JCAMDI. ISSN 0377-0427 (print), 1879-1778 (electronic). URL `http://www.sciencedirect.com/science/article/pii/S0377042797001222`.

Zund:2002:GDB

[Zun02] Joseph D. Zund. George David Birkhoff and John von Neumann: a question of priority and the ergodic theorems, 1931–1932. *Historia Mathematica*, 29(2):138–156, May 2002. CODEN HIMADS.

ISSN 0315-0860 (print), 1090-249X (electronic). URL http://www.sciencedirect.com/science/article/pii/S0315086001923389.