Appendix A: Bibliography

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September 16, 2018

A

[**A 1**] A.M. Arthurs, Complementary Variational Principles, (Oxford, UK: Clarendon Press; 1970), ix+95

[**A 2**] V.I Arnold, Mathematical Methods of Classical Mechanics, (New York, NY: Springer-Verlag; 1984), x+462

[**A 3**] David Arnett, Supernovae and Nucleosynthesis. An Investigation of the History of Matter, From the Big Bang to the Present, (Princeton, NJ: Princeton University Press; 1996), xviii+599

[**AG 1**] N.I. Akhiezer & I.M. Glazman, Theory of Linear Operators in Hilbert Space. Two Volumes Bound as One, (New York, NY: Dover Publications; 1993), xi+147/ii+218

[**AS 1**] Milton Abramowitz & Irene A. Stegun, Handbook of Mathematical Funtions with Formulas, Graphs and Mathematical Tables, (Washington, DC: National Bureau of Standards; 1964), xiv+1046

B

[**B 1**] G. Barton, Elements of Green's Functions and Propagation. Potentials, Diffusion and Waves, (Oxford, UK: Clarendon Press; 1995), xiii+465

[**B 2**] Garrett Birkhoff, Hydrodynamics. A Study in Logic, Fact, and Similitude, (New York, NY: Dover Publications; 1955), xiii+186

[**B 3**] H. Bateman, The Mathematical Analysis of Electrical and Optical Wave Motion. On the Basis of Maxwell's Equations, (New York, NY: Dover Publications; 1955), vii+159

[**B 4**] I.W. Busbridge, The Mathematics of Radiative Transfer, (Cambridge, UK: Cambridge University Press; 1960), x+143

[**B 5**] Mitchell A. Berger, "Third-order link integrals", *Journal of Physics A: Mathematical and Theoretical*, **23**, 2787-93, 1990

[**B 6**] Mitchell A. Berger, "Introduction to magnetic helicity", *Plasma Physics and Controlled Fusion*, **41**, B167-75, 1999

[**B 7**] V.S. Beskin, MHD Flows in Compact Astrophysical Objects. Accretion, Winds and Jets, (Berlin, DE: Springer; 2010), xvii+426

[**B 8**] Victor Bryant, Metric Spaces. Iteration and Application, (Cambridge, UK: Cambridge University Press; 1996), vi+104

[**BB 1**] M.V. Berry & N.L. Balazs, "Nonspreading wave packets", *American Journal of Physics*, **47**(3), 264-7, 1979

[**BF 1**] Mitchell A. Berger & George B. Field, "The topological properties of magnetic helicity", *Journal of Fluid Mechanics*, **147**, 138-48, 1984

[**BL 1**] P. Burger & H.J.G.L.M. Lamers, "Analytical espressions for the Rosseland-

mean opacity and electron scattering in stellar atmospheres", *Astronomy & Astrophysics*, **218**, 161-6. 1989,

[**BL-L 1**] M. Le Bellac & J.-M. Lévy-Leblond, "Galilean electromagnetism", *Il Nuovo Cimento*, **14B**(2), 217-34, 1973

[**BM 1**] Garrett Birkhoff & Saunders MacLane, A Survey of Modern Algebra, (New York, NY: The Macmillan Company; 1950), xi+450

[**BMW 1**] G.K. Batchelor, H.K. Moffatt & M.G. Worster, eds., Perspectives in Fluid Dynamics. A Collective Introduction to Current Research, (Cambridge, UK: Cambridge University Press; 2003), xiii+631

[**BT 1**] James Binney & Scott Tremaine, Galactic Dynamics, (Princeton, NJ: Princeton University Press; 1987), xv+733

[**BZ 1**] Garrett Birkhoff & E.H. Zarantonello, Jets, Wakes and Cavities, (New York, NY: Academic Press; 1957), xii+353

C

[**C 1**] Brian J. Cantwell, Introduction to Symmetry Analysis, (Cambridge, UK: Cambridge University Press; 2002), xli+612

[**C 2**] Carlo Cercignani, Rarefied Gas Dynamics. From Basic Concepts to Actual Calculations, (Cambridge, UK: Cambridge University Press; 2000), xviii+320

[**C 3**] John Castor, Radiation Hydrodynamics, (Cambridge, UK: Cambridge University Press; 2004), xii+355

[**C 4**] George W. Collins, II, The Virial Theorem in Stellar Astrophysics, (Tucson, AZ: Pachart Publishing House; 1978), viii+135

[**C 5**] S. Candlestickmaker (with J.B. Sykes), "On the imperturbability of elevator operators. LVII", *Quarterly Journal of the Royal Astronomical Society*, **13**, 63-6, 1972

[**C 6**] C.G. Campbell, Magnetohydrodynamics in Binary Stars, (Dordrecht, NL: Kluwer Academic Publishers; 1997), xi+306

[**C 7**] Paul Charbonneau, Solar and Stellar Dynamos, (Berlin, DE: Springer; 2013), xv+237

[**C 8**] E.T. Copson, Metric Spaces, (Cambridge, UK: Cambridge University Press; 1968), vii+143

[**CDF-WHL 1**] D.G. Crighton, A.P. Dowling, J.E. Ffowcs-Williams, M. Heckl & F.G. Leppington, Modern Methods in Analytical Acoustics. Lecture Notes, (London, UK: Springer-Verlag; 1992), xvii+738

[**CF 1**] S. Chandrasekhar & E. Fermi, "Problems of gravitational stability in the presence of magnetic fields", *Astrophysical Journal*, **118**, 116-41, 1953

[**CG 1**] John P. Cox (with R. Thomas Giuli), Principles of Stellar Structure. Volume I: Physical Principles. Volume II: Applications to Stars, (New York, NY: Gordon and Breach Science Publishers; 1968), xxliv+1327

[**CG 2**] Stephen Childress & Andrew D. Gilbert, Stretch, Twist, Fold: The Fast Dynamo, (Berlin, DE: Springer; 1995), xi+406

[**CH 1**] R. Courant & D. Hilbert, Methods of Mathematical Physics. Volume I. (New York, NY: Interscience Publishers; 1953), xv+561

D

[**D 1**] P.A. Davidson, Turbulence in Rotating, Stratified, and Electrically Conducting Fluids, (Cambridge, UK: Cambridge University Press; 2013), xvii+681

[**D 2**] B. Davison (with J.B. Sykes), Neutron Transport Theory, (Oxford, UK: Clarendon Press; 1957), –+450

[**DF-W 1**] A.P. Dowling & J.E. Ffowcs-Williams, Sound and Sources of Sound, (Chichester, UK: Ellis Horwood Ltd; 1989), –+321

[**DK 1**] T. Demaerel & R. Keppens, "Stability of ideal MHD configurations. II. Results for stationary equilibrium configurations", *Physics of Plasmas*, **23**, 122118, 2016. https://doi.org/10.1063/1.4971812

[**DL 1**] Egidio Landi Degl'Innocenti & Marco Landolfi, Polarization in Spectral Lines, (Dordrecht, NL: Kluwer Academic Publishers; 2004), xvii+890

[**DR 1**] Philip Drazin & Norman Riley, The Navier-Stokes Equation. A Classification of Flows and Exact Solutions, (Cambridge, UK: Cambridge University Press; 2006), x+196

E

[**E 1**] Carl Eckert, Hydrodynamics of Oceans and Atmospheres, (New York, NY: Pergamon Press; 1960), xi+290

F

[**F 1**] David Flower, Molecular Collisions in the Interstellar Medium, (Cambridge, UK: Cambridge University Press; 1990), xii+133

[**FP 1**] Bengt Fornberg & Cécile Piret, An Illustrated Introduction to Analytic Functions, in press

G

[**G 1**] Tamas I. Gombosi, Gaskinetic Theory, (Cambridge, UK: Cambridge University Press; 1994), xiv+297

[**G 2**] Marvin E. Goldstein, Aeroacoustics, (New York, NY: McGraw-Hill Book Company; 1976), xvii+293

[**G 3**] Gary A. Glatzmaier, Introduction to Modeling Convection in Planets and Stars. Magnetic Field, Density Stratification, and Rotation, (Princeton, NJ: Princeton University Press; 2014), xiii+311

[**G 4**] R.M. Goody, Atmospheric Radiation. I. Theoretical Basis, (Oxford, UK: Clarendon Press; 1964), xi+436

[**G 5**] David F. Gray, The Observation and Analysis of Stellar Photospheres, 2nd Edn., (Cambridge, UK: Cambridge University Press; 1992), xvii+452

[**G 6**] Michael C. Gemignani, Elementary Topology, 2nd Edn., (Reading, MA: Addison-Wesley Publishing Company; 1972), xi+270

[**G 7**] Michael Gemignani, Introduction to Real Analysis, (Philadelphia, PA: W.B. Saunders; 1971), viii+160

[**G 8**] Timothy Gowers, ed., The Princeton Companion to Mathematics, (Princeton, NJ: Princeton University Press; 2008). xxi+1034

[**GK 1**] Delbert Garrick & Raymond Kuselman, "Magnetic monopoles", *The Physics Teacher*, **9**(7), 366-9, 1971

[**GKP 1**] J.P. Goedbloed, Rony Keppens & Stefan Poedts, Advanced Magnetohydrodynamics. With Applications to Laboratory and Astrophysical Plasmas, (Cambridge, UK: Cambridge University Press; 2010), xvi+634

[**GMS 1**] I.M. Gelfand, R.A. Minlos & Z. Ya. Shapiro, Representations of the Rotation Group and Lorentz Groups and Their Applications, (Mineola, NY: Dover Publications; 2018), xviii+384

[**GP 1**] Leon Golub & Jay Pasachoff, The Solar Corona, (Cambridge, UK: Cambridge University Press; 1997), xiv+374

[**GS 1**] J.P. Goedbloed & Stefan Poedts, Principles of Magnetohydrodynamics. With Applications to Laboratory and Astrophysical Plasmas, (Cambridge, UK: Cambridge University Press; 2004), xvi+613

H

[**H 1**] M.S. Howe, Theory of Vortex Sound, (Cambridge, UK: Cambridge University Press; 2003), xiv+216

[**H 2**] Eberhard Hopf, Mathematical Problems of Radiative Equilibrium, (Cambridge, UK: Cambridge University Press; 1934), viii+105

[**H 3**] Kerson Huang, Statistical Mechanics, (New York, NY: John Wiley & Sons; 1965), xiii+470

[**H 4**] Paul R. Halmos, Finite-dimensional Vector Spaces, 2nd Edn., (Mineola, NY: Dover Publications; 2017), viii+200

[**H 5**] Paul R. Halmos, Introduction to Hilbert Space and the Theory of Spectral Multiplicity, (Mansfield Center, CT: Martino Publishing; 2013), –+114

[**H 6**] Robert Hermann, Lie Groups for Physicists, (New York, NY: W.A. Benjamin; 1968), ix+193

[**H 7**] Nicholas J. Higham, ed., The Princeton Companion to Applied Mathematics, (Princeton, NJ: Princeton University Press; 2015), xvii+994

[**HH 1**] Douglas Heggie & Piet Hut, The Gravitational Million-Body Problem. A Multidisciplinary Approach to Star Cluster Dynamics, (Cambridge, UK: Cambridge University Press; 2003), xiv+357

[**HI 1**] Stephen Hawking & Werner Israel, eds., 300 Years of Gravitation, (Cambridge, UK: Cambridge University Press; 1989), xiii+690

[**HM 1**] Ivan Hubeny & Dimitri Mihalas, Theory of Stellar Atmospheres. An Introduction to Astrophysical Non-Equilibrium Quantitative Spectroscopic Analysis, (Princeton, NJ: Princeton University Press; 2015), xvi+923

I

[**I 1**] Alan W. Irwin, "Polynomial partition function approximations for 344 atomic and molecular species", *Astrophysical Journal Supplement Series*, **45**, 621-33, 1981

[**I 2**] E.L. Ince, Ordinary Differential Equations, (New York, NY: Dover Publications; 1955), viii+558

J

[**J 1**] J.D. Jackson, Classical Electrodynamics, (New York, NY: John Wiley & Sons; 1963), xvii+641

[**J 2**] David Joyner, Adventures in Group Theory. Rubik's Cube, Merlin's Machine & Other Mathematical Toys, (Baltimore, MD: Johns Hopkins University Press; 2002), xv+262

[**J 3**] Nathan Jacobson, Lie Algebras, (New York, NY: Dover Publications; 1979), ix+331

K

[**K 1**] Russell M. Kulsrud, Plasma Physics for Astrophysics, (Princeton, NJ: Princeton University Press; 2005), xviii+468

[**K 2**] V. Kourganoff (with I.W. Busbridge), Basic Methods in Transfer Problems. Radiative Equilibrium and Neutron Diffusion, (Oxford, UK: Clarendon Press; 1952), xv+281

[**K 3**] V.P. Korobeinikov, Problems of Point-Blast Theory, (New York, NY: American Institute of Physics; 1991), xii+382

[**K 4**] E. Kamke, Theory of Sets, (New York, NY: Dover Publications; 1950), vii+144

[**KD 1**] R. Keppens & T. Demaerel, "Stability of ideal MHD configurations. I. Realizing the generality of the $\mathcal{G}$ operator", *Physics of Plasmas*, **23**, 122117, 2016. https://doi.org/10.1063/1.4971811

L

[**L 1**] M.J. Lighthill, Fourier Analysis and Generalised Functions, (Cambridge, UK: Cambridge University Press; 1978), viii+79

[**L 2**] N.N. Lebedev, Special Functions & Their Applications, (New York, NY: Dover Publications; 1972), xii+308

[**L 3**] André Lichnerowicz, Relativistic Hydrodynamics and Magnetohydrodynamics, (New York, NY: W.A. Benjamin; 1967), ix+196

[**L 4**] A. Lichnerowicz, Elements of Tensor Calculus, (New York, NY: John Wiley & Sons; 1962), vii+164

[**L 5**] Harry J. Lipkin, Lie Groups for Pedestrians, (Mineola, NY: Dover Publications; 2002), ix+182

[**LC 1**] Henny J.G.L.M. Lamers & Joseph P. Casinelli, Introduction to Stellar Winds, (Cambridge, UK: Cambridge University Press; 1999), xiv+438

M

[**M 1**] D.B. Melrose, Plasma Astrophysics: Nonthermal Processes in Diffuse Magnetized Plasmas. Volume I: The Emission, Absorption, and Transfer of Waves in Plasmas. Volume II. Astrophysical Applications, (New York, NY: Gordon and Breach Science Publishers; 1980), ix+269/viii+423

[**M 2**] K. Moriyasu, An Elementary Primer for Gauge Theory, (Singapore, SG: World Scientific Publishing; 1983), xi+177

[**M 3**] Leon Mestel, Stellar Magnetism, 2nd Edn, (Oxford, UK: Oxford University Press; 2012), xxi+715

[**M 4**] Dimitri Mihalas, Stellar Atmospheres, (San Francisco, CA: W.H. Freeman and Company; 1970), xiv+463

[**M 5**] Dimitri Mihalas, "The calculation of model stellar atmospheres", in Berni Alder, Sidney Fernbach & Manuel Rotenberg, eds., Methods in Computational Physics. Volume 7: Astrophysics, (New York, NY: Academic Press; 1967), pp. 1-52

[**M 6**] F. Curtis Michel, Theory of Neutron Star Magnetospheres, (Chicago, IL: University of Chicago Press; 1991), xvi+517

[**MM 1**] Dimitri Mihalas & Barbara Weibel Mihalas, Foundations of Radiation Hydrodynamics, (New York, NY: Oxford University Press; 1984), xv+718

O

[**O 1**] Gordon I. Ogilvie, "Astrophysical fluid dynamics", *Journal of Plasma Physics*, **82**(3), 205820301, 2016. https://doi.org/10.1017/S0022377816000489

P

[**P 1**] Wolfgang Pauli, Thermodynamics and Kinetic Theory of Gases, The Pauli Lectures on Physics, Volume 3, (Mineola, NY: Dover Publications; 2000), x+138

[**P 2**] Joseph Pedlosky, Geophysical Fluid Dynamics, (New York, NY: Springer-Verlag; 1984), xii+624

[**P 3**] Eugene N. Parker, Conversations on Electric and Magnetic Fields in the Cosmos, (Princeton, NJ: Princeton University Press; 2007), xiii+179

[**P 4**] E.N. Parker, Cosmical Magnetic Fields. Their Origin and Activity, (Oxford, UK: Clarendon Press; 1979), xvii+841

[**P 5**] Gerald C. Pomraning, The Equations of Radiation Hydrodynamics, (Mineola, NY: Dover Publications; 2005), x+286

[**P 6**] Shih-I Pai, Radiation Gas Dynamics, (New York, NY: Springer-Verlag; 1966), viii+229

[**P 7**] Eugene N. Parker, "Tensor virial equations", *Physical Review*, **96**(6), 1686-90, 1954

[**P 8**] Roger Penrose, The Road to Reality. The Complete Guide to the Laws of the Universe, (New York, NY: Alfred A. Knopf; 2005), xxviii+1099

[**PFL 1**] Kenneth J.H. Phillips, Uri Feldman & Enrico Landi, Ultraviolet and X-Ray Spectroscopy of the Solar Atmosphere, (Cambridge, UK: Cambridge University Press; 2008), x+349

[**PFM 1**] Giovanni Preti, Fernando de Felice & Luca Masiero, "On the Galilean non-invariance of classical electromagnetism", *European Journal of Physics*, **30**, 381-91, 2009

R

[**R 1**] Paul I. Richards, Manual of Mathematical Physics, (New York, NY: Pergamon Press; 1959), xi+486

[**R 2**] F. Rohrlich, Classical Charged Particles. Foundations of Their Theory, (Reading, MA: Addison-Wesley Publishing Company; 1965), xiii+305

[**R 3**] P.H. Roberts, An Introduction to Magnetohydrodynamics, (New York, NY: American Elsevier Publishing Company; 1967), x+264

[**R 4**] Germain Rousseaux, "Forty years of Galilean electromagnetism (1973-2013)", *European Journal of Physics Plus*, **128**, 81, 2013

[**R 5**] Arttu Rajantie, "The search for magnetic monopoles", *Physics Today*, **69**(10), 40-6, 2016

[**RL 1**] George B. Rybicki & Alan P. Lightman, Radiative Processes in Astrophysics, (New York, NY: John Wiley & Sons; 1979), xv+382

S

[**S 1**] Frank H. Shu, The Physics of Astrophysics. Volume I: Radiation. Volume II: Gas Dynamics, (Mill Valley, CA: University Science Books; 1991)

[**S 2**] Reinhard Schlickeiser, Cosmic Ray Astrophysics, (Berlin, DE: Springer; 2002), vx+519

[**S 3**] Rick Salmon, Lectures on Geophysical Fluid Dynamics, (New York, NY: Oxford University Press; 1998), xiii+378

[**S 4**] G.A. Schott, Electromagnetic Radiation. And the Mechanical Reactions Arising From It, (Cambridge, UK: Cambridge University Press; 1912), xxii+330

[**S 5**] V.V. Sobolev, A Treatise on Radiative Transfer, (Princeton, NJ: D. Van Nostrand Company; 1963), xi+319

[**S 6**] Lyman Spitzer, Jr., Physics of Fully Ionized Gases, 2nd Edn, (New York, NY: John Wiley & Sons; 1962), xii+176

[**S 7**] Donald G. Saari, Collisions, Rings, and Other Newtonian N-Body Problems, (Providence, RI: American Mathematical Society; 2006), x+235

[**S 8**] K.P. Stanyukovich, Unsteady Motion of Continuous Media, (London, UK: Pergamon Press; 1960), xiii+745

[**S 9**] Stephanie Frank Singer, Linearity, Symmetry, and Prediction In the Hydrogen Atom, (New York, NY: Springer; 2005), xiv+396

[**SO 1**] Jerome Spanier & Keith B. Oldham, An Atlas of Functions, (New York, NY: Hemisphere Publishing; 1987), ix+700

T

[**TCB 1**] Steven M. Tobias, Fausto Cattaneo & Stanislav Boldyrev, "MHD Dynamos and Turbulence", in P.A. Davidson, Y. Kaneda & K.R. Sreenivasan, eds., Ten Chapters on Turbulence, (Cambridge, UK: Cambridge University Press; 2012), pp. 351-404

V

[**V 1**] M.S. Vardya, "Physical atmospheric parameters for late-type stars", *Astrophysical Journal*, **133**, 107-29, 1961

[**VK 1**] Walter G. Vincenti & Charles H. Kruger, Jr., Introduction to Physical Gas Dynamics, (Malabar, FL: Robert E. Krieger Publishing Company; 1965), xvii+538

[**VSSCTL 1**] A. Vögler, S. Shelyag, M. Schüssler, F. Cattaneo, T. Emonet & T. Linde, "Simulations of magneto-convection in the solar photosphere. Equations, methods and results of the MURaM code," *Astronomy & Astrophysics*, **429**, 335-51, 2005. https://doi.org/10.1051/0004-6361:20041507

W

[**W 1**] Gary Webb, Magnetohydrodynamics and Fluid Dynamics: Action Principles and Conservation Laws, Lecture Notes in Physics 946, (Cham, CH: Springer; 2018), xiv+301

[**W 2**] Frank Wilczek, "On absolute units, I: Choices, II: Challenges and Response", *Physics Today*, **58**(10)/**59**(1), 12-3/10-1, 2005

[**WB 1**] Andrew N. Wright & Mitchell A. Berger, "A physical description of magnetic helicity evolution in the presence of reconnection lines", *Journal of Plasma Physics*, **46**(1), 179-99, 1991

[**WP 1**] N.O. Weiss & M.R.E. Proctor, Magnetoconvection, (Cambridge, UK: Cambridge University Press; 2014), xi+397

Z

[**Z 1**] A.H. Zeemanian, Distribution Theory and Transform Analysis. An Introduction to Generalized Functions with Applications, (New York, NY: Dover Publications; xii+371

[**Z 2**] Radyadour Zeytounian, Asymptotic Modeling of Atmospheric Flows, (Berlin, DE: Springer-Verlag; 1990), xii+396