

# Bibliography

- [1] National Institute of Standards and Technology (NIST):  
<http://physics.nist.gov>.
- [2] G. W. C. Kaye and T. H. Laby: *Tables of Physical and Chemical Constants (16th edition)*, Longman Group Ltd, 1995.
- [3] D. R. Lide (ed): *Handbook of Chemistry and Physics (77th Edition)*, CRC Press, 1996.
- [4] C. W. Misner, K. S. Thorne, and J. A. Wheeler: *Gravitation*, Freeman, 1973.
- [5] S. K. Lamoreaux: *Demonstration of the Casimir Force in the 0.6 to 6  $\mu$ m Range*, Phys. Rev. Lett. **78**, 5 (1997).
- [6] H. B. Callen: *Thermodynamics*, John Wiley, 1960.
- [7] G. A. Tokaty: *A History and Philosophy of Fluid Mechanics*, Dover Publications, 1994.
- [8] C. W. Allen: *Astrophysical Quantities*, The Athlone Press, 1972.
- [9] Sir Horace Lamb: *Hydrodynamics*, Cambridge University Press (1993). First published 1879..
- [10] L. D. Landau and E. M. Lifshitz: *Theory of Elasticity*, Pergamon Press, 1986.
- [11] Jorgen Christensen-Dalsgaard: *The ‘standard’ Sun*, Space Science Reviews **85**, 19 (1998) and private communication.

- 
- [12] A. E. Green and W. Zerna: *Theoretical Elasticity*, Dover Publications, 1992.
- [13] A. E. H. Love: *A Treatise on the Mathematical Theory of Elasticity*, Cambridge University Press, 1906.
- [14] S. Weinberg: *Gravitation and Cosmology*, John Wiley, 1972.
- [15] L. Prandtl: *Über Flüssigkeitsbewegung bei sehr kleiner Reibung*, Proc. third int. math. Congress, Heidelberg (1904).
- [16] T.E. Faber: *Fluid Dynamics for Physicists*, Cambridge University Press, 1995.
- [17] J. Pedlosky: *Geophysical Fluid Dynamics*, Springer, 1987.
- [18] G.K. Batchelor: *An Introduction to Fluid Dynamics*, Cambridge University Press, 1967.  
A classic text on fluid mechanics with emphasis on both qualitative, semi-quantitative and analytic arguments. .
- [19] A. Peters, K. Y. Chung, and S. Chu: *Measurement of gravitational acceleration by dropping atoms*, Nature 400, 849 (1999).
- [20] B. W. Carroll and D. A. Ostlie: *An Introduction to Modern Astrophysics*, Addison-Wesley Publishing Company, 1996.
- [21] S. L. Shapiro and S. A. Teukolsky: *Black Holes, White Dwarfs, and Neutron Stars*, John Wiley & Sons, 1983.
- [22] C. C. Lin, L. A. Segel and G. H Handelman: *Mathematics applied to Deterministic Problems in the Natural Sciences*, MacMillan Publishing Co., Inc, 1974.
- [23] H. Goldstein: *Classical Mechanics, 2nd edition*, Addison-Wesley Publishing Company, 1980.
- [24] P. Melchior: *The Tides of the Planet Earth*, Pergamon Press, 1978.
- [25] I. B. Cohen: *The Birth of a New Physics*, Penguin, 1985.
- [26] D. S. Chandrasekharaiyah and L. Debnath: *Continuum Mechanics*, Academic Press, 1994.  
A thorough presentation of continuum mechanics with numerous examples and problems..
- [27] N. I. Muskhelishvili: *Some Basic Problems of the Mathematical Theory of Elasticity*, P. Noordhoof Ltd, Holland (1953).  
A comprehensive mathematical presentation of linear elasticity theory in particular for planar systems..

- 
- [28] I. S. Sokolnikoff: *Mathematical Theory of Elasticity*, McGraw-Hill Book Company, Inc., 1956.  
*A very clear and comprehensive treatment of theoretical elasticity, in particular variational principles and numerical methods..*
- [29] A. E. Green and J. E. Adkins: *Large Elastic Deformations and Non-Linear Continuum Mechanics*, Oxford University Press, 1960.
- [30] D. Pnueli and C. Gutfinger: *Fluid Mechanics*, Cambridge University Press, 1992.
- [31] G. Boxer: *Fluid Mechanics*, The MacMillan Press Ltd, 1988.
- [32] R. Cayrel et al: *Measurement of stellar age from uranium decay*, Nature **209**, 691 (2001).
- [33] M. N. L. Narasimhan: *Principles of Continuum Mechanics*, Wiley, 1993.  
*A rather formal but comprehensive treatment of the fundamental aspects of continuum mechanics.*
- [34] J. F. Douglas, J. M. Gasiorek, and J. A. Swaffield: *Fluid Mechanics, 4.th edition*, Prentice Hall, 2001.  
*A rather technical book with a rich collection of examples.*
- [35] W. H. Press, S. A. Teukolsky, W. T. Vetterling, and B. P. Flannery: *Numerical recipes in C*, Cambridge University Press, 1992.  
*The standard text for numeric methods.*
- [36] S. Vogel: *Life in Moving Fluids*, Princeton University Press, 1994.  
*A truly wonderful book on the life styles of the numerous organisms that swim and fly.*
- [37] F. M. White: *Fluid Mechanics*, McGraw-Hill, 1999.  
*An excellent and detailed book with emphasis on engineering aspects of fluid mechanics.*
- [38] M. Griebel, T. Dornseifer, and T. Neunhoeffer: *Numerical Simulation in Fluid Dynamics*, SIAM, 1998.  
*A good “do-it-yourself” book for implementing a fluid dynamics simulator capable of handling a number of problems in two and three dimensions..*
- [39] J. D. Anderson, jr: *Computational Fluid Dynamics*, McGraw-Hill, 1995.
- [40] D. J. Acheson: *Elementary Fluid Dynamics*, Oxford University Press, 1990.  
*An excellent physics-oriented exposition of most of the interesting phenomena of fluid mechanics with lots of historical notes..*

- 
- [41] H. K. Versteeg and W. Malalasekera: *An introduction to Computational Fluid Dynamics*, Prentice Hall, 1995.
- [42] I. Doghri: *Mechanics of Deformable Solids*, Springer, 2000.
- [43] P. G. Saffman: *Vortex Dynamics*, Cambridge University Press, 1992.
- [44] A. Maurel and P. Petitjeans: *Vortex Structure and Dynamics*, Springer, 2000.  
*Lecture notes from a workshop held in Rouen 1999.*
- [45] H. P. Greenspan: *The Theory of Rotating Fluids*, Cambridge University Press, 1968.
- [46] F. M. White: *Viscous Fluid Flow*, McGraw-Hill, 1991.
- [47] W. F. Hughes and J. A. Brighton: *Fluid Dynamics*, McGraw-Hill, 1991.  
*An excellent account of fluid dynamics with emphasis on engineering.*
- [48] D. Adams: *The hitchhiker's guide to the Galaxy*, In the anthology, *The ultimate hitchhiker's guide*, Wing books, New York, 1996.  
*A wonderful novel in which the computer Deep Thought in chapter 27 calculates that the answer to the question of Life, the Universe and Everything is 42.*
- [49] V. M. Falkner, S.W.Skan: *Some Approximate Solution of the Boundary Layer Equations*, Phil. Mag. **12**, 865 (1931).  
*Get a copy of this article.*
- [50] H. Schlichting, K. Gersten: *Boundary-Layer Theory*, 8th Edition, Springer, 2000.
- [51] I. J. Sobey: *Introduction to Interactive Boundary Layer Theory*, Oxford University Press, 2000.
- [52] A. Walz: *Boundary Layers of Flow and Temperature*, The MIT Press, 1969.
- [53] J. D. Anderson, Jr: *Aerodynamics*, McGrawHill, 2001.  
*A fine and readable book on aerodynamics.*
- [54] J. D. Anderson, Jr: *A History of Aerodynamics*, Cambridge University Press, 1997.  
*A wonderfully warm and comprehensive history of aerodynamics at a level suitable for university students.*
- [55] A. Andersen: , .

- 
- [56] A. Filippone: *Advanced Topics in Aerodynamics*, Electronic book at URL “<http://aerodyn.org>”..  
*A truly modern and “live” book on aerodynamics, CFD, propulsion systems and related technology.*
- [57] L. D. Landau and E. M. Lifshitz: *Fluid Mechanics, 2nd edition*, Butterworth-Heinemann, 1987.
- [58] J. Lighthill: *Waves in fluids*, Cambridge University Press (1978).  
*The classic text on waves.*
- [59] J. J. Stoker: *Water waves*, Wiley, 1992.  
*Mathematically oriented text on mainly shallow surface waves in water.*
- [60] C. C. Mei: *The applied dynamics of ocean surface waves*, World Scientific, 1989.
- [61] R. G. Dean and R. A. Dalrymple: *Water wave mechanics for engineers and scientists*, World Scientific, 1991.
- [62] R. W. Fox and A. T. McDonald: *Introduction to Fluid Mechanics (third edition)*, Wiley, 1985.  
*An excellent textbook with numerous practical examples and excercises.*
- [63] B. Massey (revised by J. Ward-Smith): *Mechanics of Fluids*, Stanley Thornes (Publishers) Ltd, 1998.  
*A fine book intended for engineering students.*
- [64] E. Guyon, J-P. Hulin, L. Petit, and C. D. Mitescu: *Physical hydrodynamics*, Oxford University Press (2001).
- [65] D. J. Tritton: *Physical Fluid Dynamics*, Oxford University Press (1988).
- [66] Y. A. Cengel and M. A. Boles: *Thermodynamics, an engineering approach*, McGraw-Hill (2002).
- [67] D. Kondepudi and I. Prigogine: *Modern Thermodynamics*, Wiley (1998).
- [68] L. Sedov: *Similarity and Dimensional Methods in Mechanics*, Academic Press, New York (1959).
- [69] S. Chandrasekhar: *Hydrodynamic and hydromagnetic stability*, Dover (1981).
- [70] S. Vogel: *Life’s Devices*, Princeton University Press (1988).

