

Bibliography and Further Reading

- Arnold V I, *Mathematical Methods of Classical Mechanics*, Springer-Verlag, 1978.
- Brillouin L, *Tensors in Mechanics and Elasticity*, Academic Press, 1964.
- Coopersmith J, *Energy, the Subtle Concept: the discovery of Feynman's blocks, from Leibniz to Einstein*, Oxford University Press, revised edition, 2015; referred to in this book as Coopersmith, *EtSC*.
- Ehlers J, Rindler W, and Penrose R, 'Energy conservation as the basis of relativistic mechanics II', *American Journal of Physics* 33(12) 1965 p 995.
- Feynman R P, *Lectures on Physics*, with Leighton and Sands, Addison-Wesley, Reading, MA, Fifth printing, 1970
- Feynman R P, *QED: the Strange Theory of Light and Matter*, Princeton University Press, 1985.
- Feynman R P, and Hibbs A R, *Quantum Mechanics and Path Integrals*, McGraw-Hill Companies, 1965.
- Gignoux C and Silvestre-Brac B, *Solved Problems in Lagrangian and Hamiltonian Mechanics*, Springer, 2009.
- Goldstein H, *Classical Mechanics*, Second edition, Addison-Wesley Publishing Company, 1980.
- Gray C G and Taylor E F, 'When action is not least', *American Journal of Physics*, 75(5) 2007 pp 434–58.
- Greenwood D T, *Classical Dynamics*, revised edition, Dover Books, 1977.
- Hamilton W R, Theory of Systems of Rays, *Transactions of the Royal Irish Academy*, 15(1828) pp 69–174 (+ supplement in 1830); On a General Method of expressing the Paths of Light and of the Planets by the Coefficients of a Characteristic Function, *Dublin University Review* (1833) pp 795–826; On the Application to Dynamics of a General Mathematical Method previously applied to Optics, *British Association Report 1834*, publ. 1835 pp 513–8; On a General Method in Dynamics; by which the Study of the Motions of all free systems of attracting or repelling Points is reduced to the Search and Differentiation of one central Relation or Characteristic Function, *Philosophical Transactions of the Royal Society*, part II for 1834, pp 247–308.
- Hildebrandt S and Tromba A, *The Parsimonious Universe: shape and form in the natural world*, Copernicus, Springer-Verlag, New York, Inc. 1996.
- Lagrange J-L, *Mécanique analytique* 1788, translated by Boissonade and Vagliente, Kluwer Academic, 1997.
- Lanczos C, *The Variational Principles of Mechanics*, Fourth Edition, Dover Publications, Inc. (1970); 'Space Through the Ages', Academic Press (1970); 'The Einstein Decade, 1905–1915', Academic Press (1974).

- Landau L D and Lifshitz E M, *Mechanics*, 3rd edition, Course of Theoretical Physics, vol 1, Pergamon Press, 1976.
- Lemons D, *Perfect Form: Variational Principles, Methods and Applications in Elementary Physics*, Princeton University Press, 1997.
- Mann P, *Lagrangian and Hamiltonian Dynamics for Chemists*, Oxford University Press, in preparation.
- Meriam J L and Kraige L G, *Engineering Mechanics*, vol 1, Statics, 4th edition, John Wiley & Sons, Inc. 1998.
- Misner C, Thorne K, Wheeler J, *Gravitation*, W H Freeman and Co. 1973.
- Newton I, *The Mathematical Principles of Natural Philosophy*, (1687), translated 1729 by Andrew Motte.
- Neuenschwander D E, *Emmy Noether's Wonderful Theorem*, The Johns Hopkins University Press, 2011.
- Schutz B, *Geometrical methods of mathematical physics*, Cambridge University Press, 1980.
- Sussman G J and Wisdom J, *Structure and Interpretation of Classical Mechanics*, The MIT Press, 2001 and 2nd edition in 2015.
- Syngé J J and Griffith B A, *Principles of Mechanics*, McGraw-Hill Book Company, Inc. 1949.
- Taylor E F, "A call to action" and many other useful publications on the website: www.eftaylor.com
- Wells D, *Schaum's Outline of Lagrangian Dynamics*, McGraw-Hill Inc., 1967.
- Wheeler J A, *A Journey into Gravity and Spacetime*, Scientific American Library, 1999.