

Texts

Required: R. M. Kulsrud, *PLASMA PHYSICS FOR ASTROPHYSICS*
E.M. Lifshitz and L.P. Pitaevski, *PHYSICAL KINETICS*

References and Supplementary Materials

- a) General Plasma Physics
 - i) Peter Sturrock, *PLASMA PHYSICS*
 - ii) W. B. Thompson, *AN INTRODUCTION TO PLASMA PHYSICS*
 - iii) N. Krall and A. Trivelpiece, *PRINCIPLES OF PLASMA PHYSICS*
 - iv) R. Goldston and P.H. Rutherford, *BASIC PLASMA PHYSICS*
 - v) P. Bellan, *FUNDAMENTALS OF PLASMA PHYSICS*
- b) Kinetic Theory
 - i) D.R. Nicholson, *INTRODUCTION TO PLASMA THEORY*
 - ii) D. Montgomery and D. Tidman, *PLASMA KINETIC THEORY*
 - iii) Y.L. Klimontovich, *STATISTICAL THEORY OF NON-EQUILIBRIUM PROCESSES IN PLASMA*
 - iv) R. Zwanzig, *NON-EQUILIBRIUM STATISTICAL MECHANICS*
 - v) C.W. Gardiner, *HANDBOOK OF STOCHASTIC METHODS*
- c) Plasma and Fluid Collective Dynamics
 - i) T.H. Stix, *THEORY OF PLASMA WAVES*
 - ii) Landau and Lifshitz, *FLUID MECHANICS*
 - iii) Landau and Lifshitz, *ELECTRODYNAMICS OF CONTINUOUS MEDIA*
 - iv) James Lighthill, *WAVES IN FLUIDS*
 - v) Gregory Falkovich, *FLUID MECHANICS FOR PHYSICISTS*
 - vi) B.B. Kadomtsev, *COLLECTIVE EFFECTS IN PLASMA*
- d) Nonlinear Plasma Theory; Nonlinear Dynamics
 - i) R. Sagdeev and A. Galeev, *NONLINEAR PLASMA THEORY*
 - ii) A. Craik, *WAVE INTERACTIONS AND FLUID FLOWS*
 - iii) E. Ott, *CHAOS IN DYNAMICAL SYSTEMS*
 - iv) P.H. Diamond, S.-I. Itoh and K. Itoh, *MODERN PLASMA PHYSICS: VOLUME 1, PHYSICAL KINETICS OF TURBULENT PLASMAS*
- e) ICF and Laser-Plasma Interaction
 - i) J. Lindl, *INERTIAL CONFINEMENT FUSION*
 - ii) W. Kruer, *LASER-PLASMA INTERACTION*
 - iii) Y.R. Shen, *PRINCIPLES OF NONLINEAR OPTICS*