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"Introduction to Modern Magnetohydrodynamics"

Cambridge University Press, ISBN: 9781107158658

La (belle) couverture est jointe en .gif. Le site internet pour plus d'informations:

<http://www.cambridge.org/fr/academic/subjects/physics/plasma-physics-and-fusion-physics/introduction-modern-magnetohydrodynamics?format=HB>

Ninety-nine percent of ordinary matter in the Universe is in the form of ionized fluids, or plasmas. The study of the magnetic properties of such electrically conducting fluids, magnetohydrodynamics (MHD), has become a central theory in astrophysics, as well as in areas such as engineering and geophysics. This textbook offers a comprehensive introduction to MHD and its recent applications, in nature and in laboratory plasmas; from the machinery of the Sun and galaxies, to the cooling of nuclear reactors and the geodynamo. It exposes advanced undergraduate and graduate students to both classical and modern concepts, making them aware of current research and the ever-widening scope of MHD. Rigorous derivations within the text, supplemented by over 100 illustrations and followed by exercises and worked solutions at the end of each chapter, provide an engaging and practical introduction to the subject and an accessible route into this wide-ranging field.
