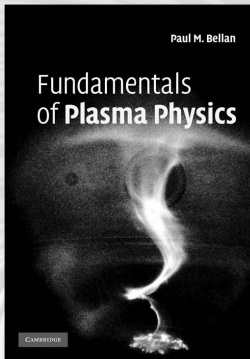


CAMBRIDGE

New and Forthcoming Titles in Plasma Physics from Cambridge!



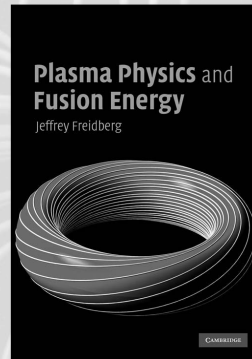
Now in Paperback!

Fundamentals of Plasma Physics

Paul M. Bellan

\$91.00: Hb: 978-0-521-82116-2: 628 pp.

\$75.00: Pb: 978-0-521-52800-9



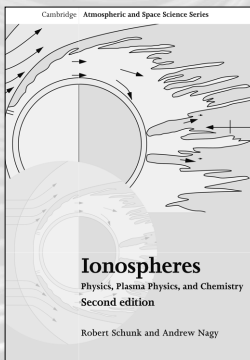
Now in Paperback!

Plasma Physics and Fusion Energy

Jeffrey P. Freidberg

\$151.00: Hb: 978-0-521-85107-7: 690 pp.

\$80.00: Pb: 978-0-521-73317-5



Forthcoming!

Ionospheres

Physics, Plasma Physics, and Chemistry

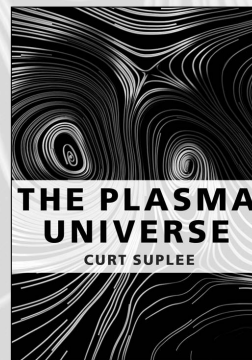
Second edition

Robert Schunk and Andrew Nagy

Cambridge Atmospheric and Space Science Series

\$150.00: Hb: 978-0-521-87706-0: 608 pp.

2nd
Edition!



Forthcoming!

The Plasma Universe

Curt Suplee

\$24.95: Pb: 978-0-521-51927-4: 85 pp.

Prices subject to change.

www.cambridge.org/us/physics



CAMBRIDGE
UNIVERSITY PRESS

1584 • 2009

425 YEARS OF CAMBRIDGE
PRINTING AND PUBLISHING

Instructions for Authors

Editorial policy The journal welcomes submissions in any of the areas of plasma physics. Its scope includes experimental and theoretical work on basic plasma physics, the plasma physics of magnetic and inertial fusion, laser–plasma interactions, industrial plasmas, plasma devices and plasmas in space and astrophysics. This list is, of course, merely illustrative of the wide range of topics on which papers are invited, and is not intended to exclude any aspect of plasma physics that is not explicitly mentioned.

Authors are urged to ensure that their papers are written clearly and attractively, in order that their work will be readily accessible to readers. Manuscripts must be written in English. *Journal of Plasma Physics* employs a rigorous peer-review process whereby all submitted manuscripts are sent to recognized experts in their subjects for evaluation. The Editors' decision on the suitability of a manuscript for publication is final.

Submission of manuscripts Papers may be submitted to the Editor or any of the Associate Editors, preferably by email in pdf format. When a paper is accepted, the authors will be asked to supply source files in LaTeX or Word. Instructions for the preparation of these files and LaTeX style files are given in the Instructions for Contributors link at journals.cambridge.org/pla.

Incremental publishing and DOIs In order to make articles which have been accepted for publication in *Journal of Plasma Physics* available as quickly as possible, they are now published incrementally online (at Cambridge Journals Online; journals.cambridge.org) The online version is available as soon as author corrections have been completed and before the article appears in a printed issue. A reference is added to the first page of the article in the journal catchline. This is the DOI – Digital Object Identifier. This is a global publishers' standard. A unique DOI number is created for each published item. It can be used for citation purposes instead of volume, issue and page numbers. It therefore suits the early citation of articles which are published on the web before they have appeared in a printed issue. See journals.cambridge.org/pla.

Proof reading Only typographical or factual errors may be changed at proof stage. The publisher reserves the right to charge authors for correction of non-typographical errors.

Offprints 50 offprints of each article will be supplied free to each first-named author. Extra offprints may be purchased from the publisher if ordered at proof stage. No page charge is made.

Copying This journal is registered with the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923. Organizations in the USA who are also registered with C.C.C. may therefore copy material (beyond the limits permitted by sections 107 and 108 of US copyright law) subject to payment to C.C.C. of the per copy fee of \$16.00. This consent does not extend to multiple copying for promotional or commercial purposes. Code 0022–3778/2009 \$16.00.

ISI Tear Sheet Service, 3501 Market Street, Philadelphia, Pennsylvania 19104, USA, is authorized to supply single copies of separate articles for private use only.

Organizations authorized by the Copyright Licensing Agency may also copy material subject to the usual conditions.

For all other use, permission should be sought from Cambridge or the American Branch of Cambridge University Press.

JOURNAL OF PLASMA PHYSICS

Volume 75 Part 3 June 2009

CONTENTS

Articles

- Inverse bremsstrahlung cross section estimated within evolving plasmas using effective ion potentials
F. WANG, E. WECKERT and B. ZIAJA 289
- Stochastic layer scaling in the two-wire model for divertor tokamaks
HALIMA ALI, ALKESH PUNJABI and ALLEN BOOZER 303
- Nonlinear interaction between a resonance-mode ($k_{\parallel} = 0$) wave and energetic plasma particles
DAVID R. SHKLYAR 319
- Equilibrium properties on the EAST superconducting tokamak
J. P. QIAN, B. N. WAN, L. L. LAO, B. SHEN, S. A. SABBAGH, J. MENARD,
Y. W. SUN, Y. M. DUAN, J. H. LI, B. J. XIAO, X. Z. GONG
and EAST RESEARCH TEAM 337
- Influence of non-monochromaticity on zonal-flow generation by magnetized Rossby waves in the ionospheric E-layer
T. D. KALADZE, H. A. SHAH, G. MURTAZA, L. V. TSAMALASHVILI,
M. SHAD and G. V. JANDIERI 345
- Magnetic detachment and plume control in escaping magnetized plasma
P. F. SCHMIT and N. J. FISCH 359
- Self-similar solutions for imploding z-pinch shells in magnetized plasmas
Y. M. SHTEMLER and M. MOND 373
- A new electrostatic mode in a dusty plasma due to dust charge fluctuation
A. A. MAMUN 389
- Collisional instability in a rare magnetized plasma: an experimental model for magnetospheric and space plasma study
CONSTANTINE L. XAPLANTERIS 395
- Generation of magnetic macrostructures by electromagnetic drift turbulence
V. D. SHAPIRO 407
- DIA and DA solitary waves in adiabatic dusty plasmas
A. A. MAMUN, N. JAHAN and P. K. SHUKLA 413