

CAMBRIDGE

Brilliant Titles in Plasma Physics

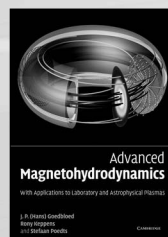
Forthcoming...

Advanced Magnetohydrodynamics With Applications to Laboratory and Astrophysical Plasmas

J. P. Goedbloed, Rony Keppens, Stefaan Poedts

\$190.00: Hardback: 978-0-521-87957-6: 648 pp.

\$95.00: Paperback: 978-0-521-70524-0

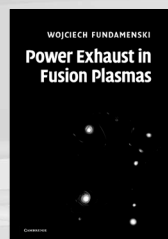
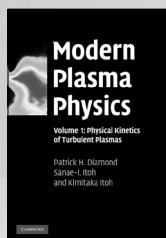


Forthcoming...

Modern Plasma Physics Volume 1 - Physical Kinetics of Turbulent Plasmas

Patrick H. Diamond, Sanae-I. Itoh, Kimitaka Itoh

\$130.00: Hardback: 978-0-521-86920-1: 456 pp.



Power Exhaust in Fusion Plasmas

Wojciech Fundamenski

\$125.00: Hardback: 978-0-521-85171-8: 444 pp.

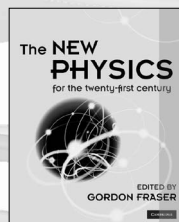
The New Physics For the Twenty-First Century

Gordon Fraser

"...This book will be an excellent addition to any physicist's library. The net effect of reading it could be likened to having a year-long series of engaging speakers at the weekly departmental colloquium—one after another brilliantly elucidating the advances in their field, but making their talks comprehensible for everyone who attended..."

—*Physics Teacher*

\$34.99: Paperback: 978-0-521-14002-7: 556 pp.



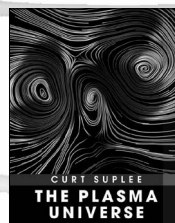
The Plasma Universe

Curt Suplee

"The Plasma Universe" is a lively, compact, beautifully illustrated and eminently readable exposition of the amazing scope of modern plasma physics. The common phenomena underlying plasma TV's sunspots and the violent death of stars are lucidly explained at level suitable for a broad audience. I particularly liked the one-page profiles of the scientists who shaped the subject, starting with Irving Langmuir, that are sprinkled throughout the text: they provide welcome historical context and human interest."

—*Curtis Callen, Professor of Physics, Princeton University, & President-Elect, American Physical Society*

\$20.99: Paperback: 978-0-521-51927-4: 88 pp.



Prices subject to change.

www.cambridge.org/us/physics
800.872.7423



CAMBRIDGE
UNIVERSITY PRESS

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 Corresponding authors will receive a PDF of their article upon publication. Print offprints may be purchased from the publisher if ordered at first proof stage.

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 0022–3778/2010 \$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 76 • PART 2 • APRIL 2010

Letter to the Editor

- A model for predicting extragalactic jet lifetimes
D. S. Spicer, Robert Bingham and S. O'sullivan 129

Main Articles

- Solar coronal heating by plasma waves
R. Bingham, P. K. Shukla, B. Eliasson and L. Stenflo 135
- Effect of electric field emission on charging of dust particles in a plasma
Mahendra Singh Sodha, Amrit Dixit and Gyan Prakash 159
- Nonlinear modulation of ion-acoustic waves in two-electron-temperature plasmas
A. Esfandyari-Kalejahi, I. Kourakis and M. Akbari-Moghanjoughi 169
- Turbulent spectra in the solar wind plasma
Dastgeer Shaikh and G. P. Zank 183
- Whistler radiation in plasmas with cylindrical magnetic field irregularities
C. Krafft and T. M. Zaboronkova 193
- Analytical and numerical investigation of diffraction effects on the nonlinear propagation of ultra-intense few-cycle optical pulses in plasmas
Harish Malav, K. P. Maheshwari, R. S. Meghwal, Y. Choyal and Rakesh Sharma 209
- Heat transport analysis of the improved confinement discharge with LHW in the HT-7 tokamak
X. M. Zhang, X. Shen, B. N. Wan, Z. W. Wu, J. Fu and The Ht-7 Team 229
- Landau damped kinetic Alfvén waves and coronal heating
R. P. Sharma and Sachin Kumar 239
- Influence of ion temperature on plasma sheath transition
Hamid Ghomi and Mansour Khoramabadi 247