

## 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](http://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](http://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](http://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 77 • PART 5 • OCTOBER 2011

## Letter

Wave propagation in the magnetized cores of white dwarf stars with ultra-relativistic degenerate electrons

*P. K. Shukla, D. A. Mendis and S. I. Krasheninnikov*

571

## Main Articles

Linear modes in the partially ionized heliosphere plasma

*M. E. Kellum and Dastgeer Shaikh*

577

Variational formulation for weakly nonlinear perturbations of ideal magnetohydrodynamics

*M. Hirota*

589

Multi-dimensional instability of solitary waves in ultra-relativistic degenerate dense magnetized plasma

*A. A. Mamun, S. S. Duha and P. K. Shukla*

617

Evolution of the bump-on-tail instability in compressing plasma

*P. F. Schmit, C. R. Mooney, I. Y. Dodin and N. J. Fisch*

629

Microwave shielding of HiPco carbon nanotube films

*Afshin Moradi and Mohammad Hosain Teimourpour*

639

Dispersion relation of transverse oscillation in relativistic plasmas with non-extensive distribution

*San-Qiu Liu and Xiao-Chang Chen*

653

The optimum shielding around a test charge in plasmas containing two negative ions

*W. M. Moslem, R. Sabry and P. K. Shukla*

663

Breakdown minimum in magnetic field-driven metal plasmas

*K. T. A. L. Burm*

675

Nonlinear wavy phenomena into plasma: some cases of stabilization and control of chaotic behaviors

*Constantine L. Xaplanteris and Eleni Filippaki*

679

Compressive high-frequency waves riding on an Alfvén/ion-cyclotron wave in a multi-fluid plasma

*Daniel Verscharen and Eckart Marsch*

693

Ion-dust streaming instability in a radially bounded dusty plasma

*M. Rosenberg and P. K. Shukla*

709