

PHYSICAL REVIEW E

STATISTICAL PHYSICS, PLASMAS, FLUIDS, AND RELATED INTERDISCIPLINARY TOPICS

Editor

IRWIN OPPENHEIM
(Massachusetts Institute of Technology)

Senior Assistant Editor
MARGARET MALLOY

Assistant to the Editor
JOANNA POPADIUK

EDITORIAL BOARD

Term ending 31 December 1998

D. CHANDLER—chemical physics
J. R. DORFMAN—statistical physics
P. MANNEVILLE—nonlinear physics,
hydrodynamics
G. PARISI—statistical physics
I. PROCACCIA—statistical physics
C. REBBI—computational physics
J. B. ROSENZWEIG—beams and plasmas
W. B. RUSSEL—complex fluids, fluid dynamics
R. ZIFF—statistical physics

Senior Assistants to the Editor

DEBBIE BRODBAR
MARGARET FOSTER
VALERIE L. MILLER

Editorial Assistant
GARY T. BEDFORD

Term ending 31 December 1999

I. B. BERNSTEIN—plasmas
Y. KURAMOTO—nonlinear physics
F. E. MOSS—biological physics
J. F. NAGLE—biological physics
R. PINDAK—liquid crystals
N. G. VAN KAMPEN—statistical mechanics

Associate Editors

NEAL ABRAHAM
(Bryn Mawr College)

BRANT M. JOHNSON
(Brookhaven National Laboratory)

GERALD HEDSTROM
(Lawrence Livermore National Laboratory)

KATEPALLI R. SREENIVASAN
(Yale University)

Term ending 31 December 1997

J. J. BISOGNANO—beams physics
M. C. GUTZWILLER—statistical physics
A. LEONARD—fluid dynamics
I. KANTER—neural networks
S. REDNER—statistical physics
D. WEITZ—disordered materials,
complex fluids

Published through the
American Institute of Physics
by

The American Physical Society

President

D. ALLAN BROMLEY

President-Elect

ANDREW M. SESSLER

Vice-President

JEROME I. FRIEDMAN

Executive Officer

JUDY R. FRANZ

Treasurer

THOMAS J. MCILRATH

Editor-in-Chief

MARTIN BLUME

Editorial Office:

1 Research Road
Box 9000
Ridge, NY 11961-9000
Telephone: (516) 591-4050
Fax: (516) 591-4141
Internet: * pre@aps.org
World Wide Web server
http://publish.aps.org/
***Not for transmission of manuscripts**

For electronic submission
of manuscripts use pretex@aps.org

Production and distribution by

American Institute of Physics
500 Sunnyside Blvd.
Woodbury, NY 11797
Telephone: (516) 576-2200
Fax: (516) 349-1802

CODEN: PLEEE8
PRINTED IN USA

Manuscripts for publication should be submitted to the Editorial Office (please provide four copies). Information for contributors may be found in the January and July issues. Submission is a representation that the manuscript has not been published previously and is not currently under consideration for publication elsewhere. A signed APS **copyright-transfer** form (to take effect upon publication) must be provided, and should be included with the submission. The copyright-transfer form appears at the end of the 18 November 1996 issue of *Physical Review Letters* and is available from the Editorial Office (or via ftp to aps.org).

To support wide dissemination of research results through publication of journal pages, the authors' institutions are requested to pay a publication charge of \$65 per page plus a \$65 abstract charge. For properly prepared electronic submissions, the request is \$50 per page plus a \$50 abstract charge. Acceptable formats are REVTeX (preferred), LaTeX, Harvmac, Plain TeX; PostScript figures. Reprints are offered for sale to authors.

Subscription prices (table below) for **nonmember subscribers** are for the period of January–December 1997. Back-number price: Single copies, \$115.

				Europe, Asia, Africa, & Oceania	
	No. Issues	U.S.A. & Poss.	Can., Mex., Cntrl. & S. Amer., & Carib.	Surface Mail	Air Freight
Physical Review E					
Nonmembers	12	\$1270	\$1320	–	\$1420
Physical Review A, B, C, D, E, Index					
Nonmembers	108	\$8720	\$9115	–	\$9890

Inquiries regarding subscriptions, renewals, address changes, missing or damaged copies, microfilm, and single-copy orders should be addressed as follows:

Members: APS Membership Department, One Physics Ellipse, College Park, MD 20740-3844 [phone: (301) 209-3280; fax: (301) 209-0867; email: membership@aps.org].

Nonmembers: Circulation and Fulfillment Division, American Institute of Physics, 500 Sunnyside Blvd., Woodbury, NY 11797 [phone: (516) 576-2270, (800) 344-6902; fax: (516) 349-9704; email: subs@aip.org]. Allow at least six-weeks advance notice. For address changes please send both old and new addresses, and, if possible, include an address stencil imprint from the mailing wrapper of a recent issue. A change-of-address form is included in every issue of *Physics Today*.

The Annual Index of Physical Review and Physical Review Letters may be ordered by nonmembers for \$110. Back issues are available for \$110. There are mail surcharges for non-U.S. destinations.

Physical Review E (ISSN: 1063-651X) is published once a month (on the 1st of each month) by The American Physical Society through the American Institute of Physics. Periodicals postage rates are paid at Woodbury, NY 11797, and additional mailing offices. POSTMASTER: Send address changes to *Physical Review E*, Circulation and Fulfillment Division, American Institute of Physics, 500 Sunnyside Blvd., Woodbury, NY 11797.

Copyright 1997 by The American Physical Society

Permission to quote excerpts or to reprint any figures or tables should be obtained directly from an author. The American Physical Society for its part hereby grants permission to quote excerpts and reprint up to 25 figures and/or tables from its journals with acknowledgment of the sources. Requests for permission to reprint in one publication more than 25 figures and/or tables from the totality of APS journals must be made in writing to the Associate Publisher (see address below). A \$10.00 fee per figure and/or table in excess of 25 will be charged.

Individual teachers, students, researchers, and libraries in nonprofit institutions acting for them are permitted to make hard copies of articles for use in teaching or research, provided such copies are not sold.

Copying of articles for sale by document delivery services or suppliers, or beyond the free copying allowed above, is permitted against payment of a copying fee. The current copying fee is \$10.00, per article, per copy. Express permission of APS is not required, except for purposes stated below, provided that the fee is paid through the Copyright Clearance Center, Inc. (CCC), 222 Rosewood Drive, Danvers, MA 01923. Contact the CCC for information on how to report copying and remit payments.

Reproduction in a reprint collection, or for advertising or promotional purposes, or republication in any form requires permission of one of the authors and a license from APS. Such a license must be sought from Mina Chung, Associate Publisher, The American Physical Society, One Physics Ellipse, College Park, MD 20740-3844. Permission from the author must be sought and obtained from him or her directly.