PHYSICAL REVIEW E STATISTICAL, NONLINEAR, AND SOFT MATTER PHYSICS

Editors GARY S. GREST (Sandia National Laboratories) MARGARET MALLOY (APS Editorial Office)

Managing Editor

DIRK JAN BUKMAN (APS Editorial Office)

Associate Editors MARC BARTHÉLEMY (CEA-Centre d'Etudes de Bruyeres-le-Chatel) **RONALD DICKMAN** (Universidade Federal de Minas Gerais) BURKHARD DUENWEG (Max-Planck-Institut fuer Polymerforschung) **BRUNO ECKHARDT** (Philipps-Universität Marburg) ANTAL JÁKLI (Kent State University) **BRANT M. JOHNSON** (Brookhaven National Laboratory) JOHN F. MARKO (Northwestern University) JULIAN D. MAYNARD (Pennsylvania State University) ANTONIO POLITI (CNR-Istituto dei Sistemi Complessi)

> Senior Assistant Editor MARGARET FOSTER

Assistant Editors JILL M. GARGANO VALERIE L. MILLER

THOMAS PATTARD JOANNA POPADIUK

Senior Editorial Assistant

TERRE ARENA

EDITORIAL BOARD

Term ending 31 December 2010

G. Ahlers	Critical Phenomena, Turbulence
I. ARANSON	Granular Systems, Pattern Formation
A. ARENAS	Complex Systems
A. BARRAT	Statistical Physics, Glasses
R. BUNDSCHUH	Biopolymers
G. CASATI	Quantum Chaos, Classical Chaos
D. DHAR	Statistical Physics
B. DROSSEL	Complex Systems
A. J. C. LADD	Computational Physics
M. MARSILI	Statistical Physics, Econophysics
M. G. ROSENBLUM	Dynamical Physics
O. SCHILLING	Fluid Mechanics, Turbulence

Term ending 31 December 2011

I. Brevik	Classical Physics, Electrodynamics
H. Chaté	Nonlinear and Statistical Physics
G. B. Ermentrout	Computational Neuroscience
S. FLACH	Nonlinear Dynamics
T. W. JOHNSTON	Plasma Physics
A. R. KERSTEIN	Turbulence
K. Lindenberg	Statistical and Stochastic Physics
J. E. MACLENNAN	Liquid Crystals
A. PUMIR	Turbulence, Fluids
J. E. S. SOCOLAR	Statistical Mechanics,
	Complex Systems

Term ending 31 December 2012

Biological and Soft Matter Physics

P. ZIHERL

R. Albert	Interdisciplinary Physics
I. GOLDHIRSCH	Granular Materials,
	Statistical Mechanics
R. HOLYST	Liquid Crystals, Complex Fluids
P. D. OLMSTED	Complex Fluids
M. A. Muñoz	Nonequilibrium Statistical Mechanics
H. PLEINER	Liquid Crystals, Polymers
H. SCHIESSEL	Polymer Physics, Biological Physics
T. TÉL	Chaos, Dynamical Systems
G. C. L. WONG	Biological Physics

American Physical Society

Officers			
President	CURTIS G. CALLAN, JR.		
President-Elect	BARRY C. BARISH		
Vice-President	ROBERT L. BYER		
Past President	CHERRY A. MURRAY		
Editor in Chief	GENE D. SPROUSE		
Treasurer and Publisher	JOSEPH W. SERENE		
Executive Officer	KATE P. KIRBY		
One Physics Ellinse			

One Physics Ellipse College Park, MD 20740-3844

APS Editorial Office

Directors Editorial DANIEL T. KULP Journal Information Systems ROBERT A. KELLY Journal Operations CHRISTINE M. GIACCONE 1 Research Road Ridge, NY 11961-2701 Fax: (631) 591-4141 Phone: (631) 591-4050 Email: pre@aps.org Web: http://publish.aps.org/ Submissions: pretex@aps.org or http://authors.aps.org/ESUB/

Member Subscriptions:

APS Membership Department One Physics Ellipse College Park, MD 20740-3844 Phone: (301) 209-3280 Fax: (301) 209-0867 Email: membership@aps.org

Institutional Sub	oscriptions:		
APS Subscription Services			
Suite 1N	01		
2 Huntington Quadrangle			
Melville, NY 11747-4502			
Toll free: (800) 344-6902			
Phone: (516) 576-2270	Fax: (516) 349-9704		
Email: subs@aps.org			

Manuscripts should be submitted electronically in acceptable format (see http://authors.aps.org/ESUB/ or inquire at pretex@aps.org). If this is not possible, send one copy to the Editorial Office. Submission is a representation that the manuscript has not been published previously and is not currently under consideration for publication elsewhere. Authors should provide indexing codes according to the PACS scheme (available at http://publish.aps.org/PACS/). An executed APS copyright-transfer form must be provided (effective only on acceptance for publication); the form is available via our Web submission server and via http://authors.aps.org/. Information for contributors may be found on our Web server or in the January and July issues.

To help defray editorial and production expenses, authors of manuscripts which are not submitted in acceptable electronic format are expected to pay a publication charge of \$1235/article, \$770/Rapid Communication or Brief Report, \$280/Comment or Reply. Acceptable formats are REVTEX (preferred), LATEX, plain TEX; MS Word; PostScript figures (preferred). Reprints are offered for sale to authors.

For information about subscription prices and about the online version of the journal, see our Web server, or inquire at assocpub@aps.org. Member inquiries regarding subscriptions, renewals, address changes, missing or damaged copies, and single-copy orders should be addressed to the APS Membership Department. Institutional subscribers should address subscription inquiries to APS Subscription Services. For address changes please send both old and new addresses, and if possible, send the mailing label from a recent issue.

Copyright O 2010 by The American Physical Society. All rights reserved. Physical Review E^{TM} is a trademark of The American Physical Society.

Rights and Permissions: See http://forms.aps.org/author/copyfaq.html.

Copying: No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the written permission of the publisher, except as stated below. Single copies of individual articles may be made for private use or research. Authorization is given to copy articles beyond the use permitted by Sections 107 and 108 of the U.S. Copyright Law, provided the copying fee of \$25.00 per copy per article is paid to the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, USA.

Reproduction of an entire Article in a reprint collection, or for advertising or promotional purposes, or republication in any form requires permission from APS. Permission must be sought from the Associate Publisher, The American Physical Society, One Physics Ellipse, College Park, MD 20740-3844; email: assocpub@aps.org.

Other Use: Permission is granted to quote from the journal with the customary acknowledgment of the source. Permission must be sought from the APS Associate Publisher to reproduce a figure, table, or excerpt of an Article. Authorization for private use or research does not extend to systematic or multiple reproduction, to copying for promotional purposes, to distribution in any format, or to republication in any form. In all such cases, specific permission from APS must be obtained.

Physical Review E [ISSN: 1539-3755 (print), 1550-2376 (online); CODEN PLEEE8; printed in USA] is published monthly by The American Physical Society, 1 Research Road, Ridge, NY 11961-2701.

POSTMASTER: Send address changes to Physical Review E, APS Subscription Services, Suite 1NO1, 2 Huntington Quadrangle, Melville, NY 11747-4502. The 2010 print + online base price is \$3010. Periodicals postage rates are paid at Huntington Station, NY, and additional mailing offices.