

PHYSICAL REVIEW E

covering statistical, nonlinear, biological, and soft matter physics

Lead Editor

PATRICK CHARBONNEAU
(Duke University)

Chief Editor

DARIO CORRADINI
(American Physical Society)

Senior Associate Editor

DIRK JAN BUKMAN
(American Physical Society)

Associate Editors

NUNO ARAÚJO
(University of Lisbon)

EMILY S.C. CHING

(Chinese University of Hong Kong)

RONALD DICKMAN

(Universidade Federal de Minas Gerais)

MAGNUS JOHANSSON

(Linköping University)

ANUPAM KUNDU

(Tata Institute of Fundamental Research)

BRUNO LOUREIRO

(CNRS and École Normale Supérieure)

VALERIO LUCARINI

(University of Reading)

ANANYA MONDAL

(American Physical Society)

FILIPPO RADICCHI

(Indiana University)

CATERINA RICONDA

(Sorbonne University)

ELENA SESÉ SANSA

(American Physical Society)

Senior Assistant Editor

MARGARET FOSTER

(American Physical Society)

Assistant Editor

TERRE ARENA

(American Physical Society)

EDITORIAL BOARD

Tommaso Alberti

Istituto Nazionale di Geofisica e Vulcanologia,
Italy

Karen Alim

Technical University of Munich, Germany

Celia Anteneodo

Pontifical Catholic University of Rio de
Janeiro, Brazil

Marco Baity-Jesi

ETH, Switzerland

Marcia C. Barbosa

Universidade Federal do Rio Grande do
Sul, Brazil

Anne-Laure Biance

Université Claude-Bernard Lyon 1, France

Luca Biferale

University of Rome Tor Vergata, Italy

Maura Brunetti

University of Geneva, Switzerland

Raffaella Burioni

University of Parma, Italy

Daniel Campos Moreno

Autonomous University of Barcelona,
Spain

Ramón Castañeda-Priego

University of Guanajuato, Mexico

Olivier Dauchot

ESPCI Paris, France

Sebastian Deffner

University of Maryland, Baltimore
County, USA

Marie-Christine Firpo

École Polytechnique, France

Rajesh Ganapathy

Jawaharlal Nehru Centre for Advanced
Scientific Research, India

Todd Gingrich

Northwestern University, USA

Kwang-II Goh

Korea University, Korea

John Goree

The University of Iowa, USA

Georg Gottwald

University of Sydney, Australia

Liesbeth M. C. Janssen

Eindhoven University of Technology, The
Netherlands

Kyogo Kawaguchi

RIKEN, Japan

Muthusamy Lakshmanan

Bharathidasan University, India

Alenka Mertelj

Jozef Stefan Institute, Ljubljana, Slovenia

Izaak Neri

King's College London, United Kingdom

Katie Newhall

University of North Carolina at Chapel
Hill, USA

Jayson Paulose

University of Oregon, USA

Dmitry E. Pelinovsky

McMaster University, Canada

Mason Porter

University of California, Los Angeles, USA

Marisol Ripoll

Forschungszentrum Jülich, Germany

Lea F. Santos

University of Connecticut, USA

Grégory Schehr

CNRS Paris, France

Jörg Schumacher

TU Ilmenau, Germany

Jen Schwarz

Syracuse University, USA

Luis F. Seane

National Center for Biotechnology, CSIC,
Spain

Suraj Shankar

University of Michigan, USA

Michele Starnini

Universitat Pompeu Fabra, Spain

Kazumasa A. Takeuchi

The University of Tokyo, Japan

Evelyn Tang

Rice University, USA

Hugo Touchette

Stellenbosch University, South Africa

Fangfu Ye

Chinese Academy of Sciences, China

Jie Zhang

Shanghai Jiao Tong University, China

Email: pre@aps.org

Web: <https://journals.aps.org/pre>

Submissions:

<https://authors.aps.org/Submissions>

American Physical Society

Chief Executive Officer JONATHAN A. BAGGER

Editor in Chief ROBERT ROSNER

Chief Publications Officer RACHEL BURLEY

Director of Publishing JEFF LEWANDOWSKI

Chief Information Officer MARK D. DOYLE

Executive Editor JESSICA THOMAS

One Physics Ellipse
College Park, MD 20740-3844

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 Subscriptions:
APS Subscription Services
P.O. Box 41
Annapolis Junction, MD 20701
Toll free: (888) 339-9655
Phone: (301) 617-7809
Email: subs@aps.org

Copyright © 2026 American Physical Society. All rights reserved.

*Physical Review E*TM is a trademark of the American Physical Society, registered in the United States, Canada, European Union and Japan.

Rights and Permissions: <https://journals.aps.org/copyrightFAQ.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 via Aptara's SciPrisTM platform. To request permission to republish, refer to the Reuse and Permissions link that can be found (online) on each APS article page and provide the requested information.

Other Use: Permission is granted to quote from the journal with the customary acknowledgment of the source. Permission must be sought using Aptara's SciPrisTM platform. To request permission to reproduce a figure, table, or excerpt of an article refer to the Reuse and Permissions link that can be found on each APS article page and provide the requested information. 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: 2470-0045 (print), 2470-0053 (online); CODEN PLEEE8; printed in USA] is published monthly by the American Physical Society, 100 Motor Parkway, Suite 110, Hauppauge, NY 11788.