

REVIEWS of MODERN PHYSICS

A quarterly journal seeking to enhance communication among physicists by publishing comprehensive scholarly reviews of physics topics, as well as colloquia and tutorial articles in rapidly developing fields of physics.

Officers

Editor: RANDALL KAMIEN, University of Pennsylvania
Colloquia
Editor: A. H. CASTRO NETO, National University of Singapore

Associate ASTROPHYSICS
Editors: VICKY KALOGERA, Northwestern University
FRIEDRICH-KARL THIELEMANN, Universität Basel
ATOMIC, MOLECULAR, AND OPTICAL PHYSICS (Experimental)
KLAUS MØLMER, University of Aarhus
BIOLOGICAL PHYSICS
MARGARET S. CHEUNG, University of Houston;
Center for Theoretical Biological Physics, Rice University
CLIMATE SCIENCE
WILLIAM D. COLLINS, University of California, Berkeley;
Lawrence Berkeley National Laboratory
CONDENSED MATTER PHYSICS (Experimental)
ARTHUR F. HEBARD, University of Florida
CONDENSED MATTER PHYSICS (Theoretical)
DIETRICH BELITZ, University of Oregon
MATHEMATICAL PHYSICS
IGOR KLEBANOV, Princeton University
NUCLEAR PHYSICS
WITOLD NAZAREWICZ, National Superconducting Cyclotron Laboratory,
Michigan State University; Oak Ridge National Laboratory
ROXANNE SPRINGER, Duke University
PARTICLE PHYSICS (Experimental)
PAUL D. GRANNIS, State University of New York, Stony Brook
PARTICLE PHYSICS (Theoretical)
PIERRE RAMOND, University of Florida
PHYSICS OF PLASMAS AND BEAMS
WIM LEEMANS, Lawrence Berkeley National Laboratory, University of California
QUANTUM INFORMATION
DAVID DiVINCENZO, Forschungszentrum Jülich
SOFT CONDENSED MATTER
MARJOLEIN DIJKSTRA, Leonard S. Ornstein Laboratorium, Universiteit Utrecht

President ROGER FALCONE
Speaker of Council TIMOTHY GAY
Chief Executive Officer KATE P. KIRBY
Editor in Chief MICHAEL THOENNESSEN
Publisher MATTHEW SALTER
Chief Information Officer MARK D. DOYLE
Chief Financial Officer MARGARET BANDERA
Deputy Executive Officer and
Chief Operating Officer JAMES TAYLOR
Chief Government Affairs
Officer FRANCIS SLAKEY

One Physics Ellipse
College Park, MD 20740-3844

APS Editorial Office

Directors

Editorial DANIEL T. KULP
Journal Operations CHRISTINE M. GIACCONE

1 Research Road
Ridge, NY 11961-2701
Phone: (631) 591-4000
Email: rmp@aps.org
Web: <http://journals.aps.org/>
Submissions: rmp@aps.org or
<http://authors.aps.org/Submissions/>

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

Journal Manager:

DEBBIE BRODBAR, APS Editorial Office

Reviews of Modern Physics publishes comprehensive reviews as well as shorter colloquia in all areas of physics. For information, see Article and Colloquium Guidelines at http://journals.aps.org/rmp/info/article_guide.html. Proposals should include an outline with the key citations.

Proposals and manuscripts should be submitted electronically in acceptable format (see <http://authors.aps.org/Submissions/>). Submission is a representation that the manuscript has not been published previously and is not currently under consideration for publication elsewhere. An executed APS copyright-transfer form must be provided (effective only on acceptance for publication). Information for Contributors can be found at <http://journals.aps.org/rmp/authors>. Reprints are offered for sale to authors.

For additional information regarding the online version of this journal, please visit: <http://journals.aps.org/rmp>. Institutional subscribers requesting address changes, filing claims, or requesting additional information, please contact the APS Subscription Services at subs@aps.org. Member subscribers requiring changes, claims or additional information should contact the APS Membership Department at membership@aps.org.

Copyright © 2018 American Physical Society. All rights reserved.

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

Rights and Permissions: <http://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 \$35.00 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 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.

Reviews of Modern Physics [ISSN: 0034-6861 (print), 1539-0756 (online); CODEN RMPHAT; printed in USA] is published quarterly by the American Physical Society, 1 Research Road, Ridge, NY 11961-2701.