

2012

APS JOURNALS CATALOG

excellence, commitment, and value



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APS
physics

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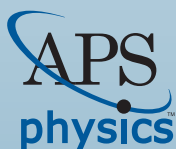
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Cover Figure Courtesy of *Phys. Rev. A* **82**, 063808 (2010).



2012

APS JOURNALS CATALOG CONTENTS

Founded in 1899, the American Physical Society (APS) strives to advance and diffuse the knowledge of physics. In support of this mission, APS publishes primary research and review journals.

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LETTER TO THE LIBRARY COMMUNITY FROM THE TREASURER/PUBLISHER

JOSEPH W. SERENE

PHYSICAL REVIEW, PHYSICAL REVIEW LETTERS, REVIEWS OF MODERN PHYSICS, PHYSICAL REVIEW SPECIAL TOPICS, PHYSICS, AND PHYSICAL REVIEW ONLINE ARCHIVE



INTRODUCTION

The journals of the American Physical Society embody the objective of the Society: “the advancement and diffusion of the knowledge of physics.” We strive to produce journals of the highest quality, and at the same time, to keep our journals accessible to researchers and students at institutions of all types and sizes, everywhere in the world, through ongoing efforts to reduce production costs and through policies such as tiered pricing and reduced-price or free subscriptions for institutions in developing countries.

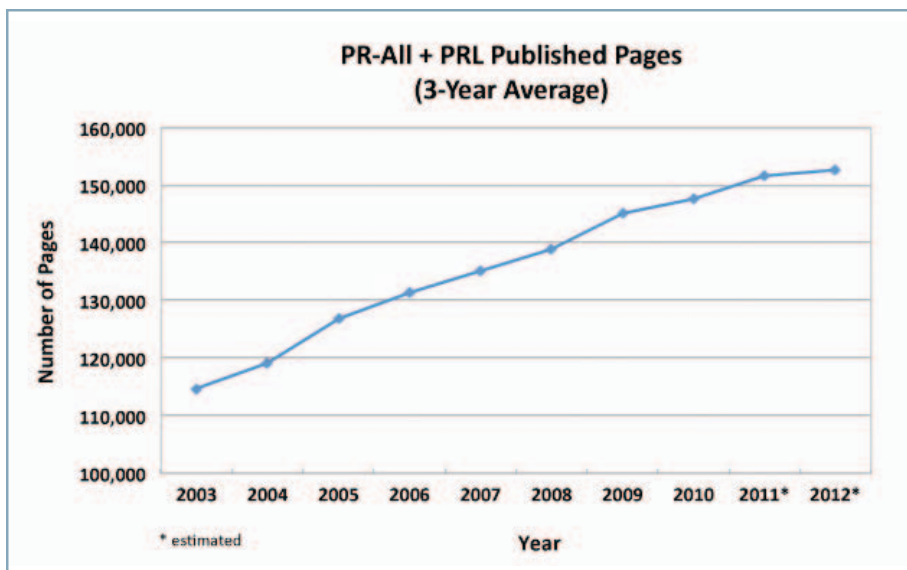
In response to requests for public access from readers outside the traditional research community, we now provide free access to all APS publications for public libraries and high schools in the United States, and we provide a low-cost article rental option through DeepDyve.

APS ONLINE JOURNALS IN 2012

The online journals are the definitive versions of the APS publications described here. Subscriptions to an individual APS journal provide access back to the first issue of that journal, thus eliminating rolling back files and clarifying COUNTER statistics. We continue to improve our journal websites, including our Librarian Portal, and we appreciate suggestions and requests from our librarian colleagues and our readers. The unified APS platform at <http://publish.aps.org/> will allow us to offer additional personalized services for readers, authors, and referees.

We set prices for the online journals to cover the costs of peer review, production of the electronic content, secure archiving, and electronic distribution, along with associated subscriber services (such as search engines, reference linking, RSS feeds, etc.), plus a small net return. Due to increasing numbers and quality of submissions, particularly from Asia and the Pacific Rim, the total number of articles and pages published by APS journals has continued to grow, as shown in the first of the accompanying figures, displaying the annual number of papers published in *Physical Review* and *Physical Review Letters* since 2003, including our projections for 2011 and 2012 (with the actual figures averaged over three years to eliminate misleading fluctuations due to occasional end-of-year production backlogs). I want to emphasize that the overall growth in the number of articles published in APS journals does not reflect a lowering of standards. In fact the standards for acceptance in *Physical Review Letters* have been very deliberately raised. Instead our journals grow because they receive more and more papers that meet our standards for publication, and because we never reject papers simply because they are not about a currently “hot” topic.

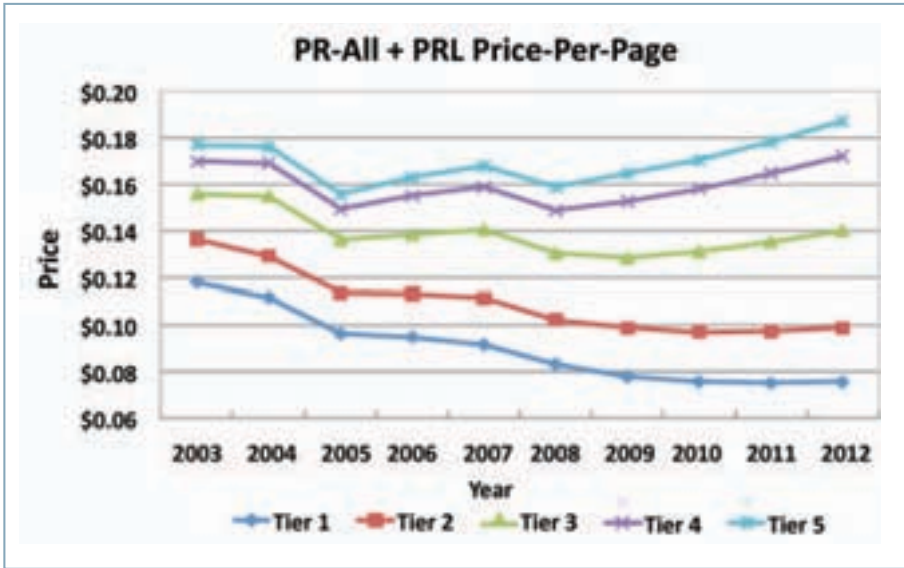
We set prices for the online journals to cover the costs of peer review, production of the electronic content, secure archiving, and electronic distribution, along with associated subscriber services, plus a small net return.



Most of our publication costs grow in proportion to the size of our journals, and so the growth in published pages drives increases in our prices, even without background inflation. The second figure gives the actual and projected price-per-page for each Tier over 2003-2012. Although the projected price-per-page for all Tiers will increase in 2012, the actual price-per-page in 2010 was lower than in 2003 for every Tier (without correcting for inflation), and for all but the two highest Tiers the projected price-per-page in 2012 will still be lower than in 2003. For comparison the Consumer Price Index-Urban (CPI-U) increased by 18.5% between 2003 and 2010, and the tuition of most private US colleges and universities increased significantly faster than the CPI. We have continued to widen the price differences across Tiers, because while our prices for Tier 5 versus Tier 1 currently differ by only a factor of approximately 2.5, the typical usage by institutions in these Tiers differs by several orders of magnitude, and their financial resources are similarly disparate.

We encourage all subscribers to consider the APS-All package, which remains our most cost-effective subscription option. A full listing of 2012 Prices can be found at: <http://librarians.aps.org/institutional.html>

We strive to guarantee the archival integrity of our online journals. In addition to the primary source at our editorial offices on Long Island, we maintain three complete and continuously updated mirror sites for all of our content, distributed widely across the country, and we have also deposited the full APS content with Portico. We want to assure the library community that we share its deep concern with this issue. The archive of APS journals is a priceless record of our subject, stretching from the present back to 1893, and is heavily used by active scientists, students, and historians. We are committed to its preservation and to enhancing its usefulness.



ONLINE-PLUS-PRINT IN 2012

Although over 70% of subscriptions to APS journals are now online only, in 2012 we will continue to offer the option of augmenting standard online subscriptions with traditional printed copies. Our goal is to set the additional subscription prices for the printed journals to cover the expenses for printing and distribution, with a small cushion against a larger than predicted decrease of print subscriptions. Because printing and shipping involve large set-up and management costs, independent of the number of copies printed, with a consistently decreasing number of print subscribers the incremental prices of the printed journals must rise significantly faster than the online-only prices.

CONCLUSION

The elected Council of the APS sets the prices of the journals after advice from its Publications Oversight Committee and the APS publications staff. Two representatives of the library community, appointed in consultation with the Physics, Astronomy, and Mathematics Division (PAM) of the Special Libraries Association (SLA) attend the Committee meetings as advisers. On behalf of the Committee and the APS, I thank the past year's advisers, Dana L. Roth of California Institute of Technology and A. Ben Wagner of the State University of New York at Buffalo. We have benefited greatly from their contributions and we value their wisdom and their friendship, particularly in these challenging times for both libraries and society publishers.

Joseph W. Serene

Treasurer/Publisher
American Physical Society

MESSAGE FROM THE EDITOR IN CHIEF

GENE D. SPROUSE

***New in 2011,
within the
Physical Review
series, is Physical
Review X, an
interdisciplinary,
online only, fully
open access
journal.***



In this 2012 APS Journals Catalog, we have compiled complete information on the ten journals that are published by the American Physical Society: *Physical Review Letters*, *Reviews of Modern Physics*, the *Physical Review* series and two Special Topics journals. New this year within the *Physical Review* series is *Physical Review X*, an interdisciplinary, online only, fully open access journal. With its first issue in fall of 2011, we hope that PRX will become an important new resource for authors and readers. Funded by article-processing charges paid by authors or their institutions, PRX is available free, for all users worldwide. This new journal is a demonstration of the commitment of the APS to open access, to the highest level that still allows for the management of rigorous peer review, secure archiving, and financial stability.

Each journal's page has its field coverage, editorial staff, impact and immediacy factors, and subscription options, as well as projections of the number of pages and articles that we expect to publish in that journal in 2012. We are now able to provide you with more accurate usage statistics, thanks to the recent realignment of our archives, such that an individual subscription to a single journal now includes everything published in that journal since its inception. The APS-All and PR-All packages share this alignment. The *Physical Review Online Archive*, better known as PROLA, still and always contains an archive of the APS publications, complete but for the most recent three years. This catalog has full information on PROLA as well as pages for our free publications: *Physics*, the *Virtual Journals*, and now PRX.

It has been exciting to see *Physics* steadily gain in popularity since its introduction in fall of 2008. *Physics* contains original commentary, brief review articles, and summaries of selected papers from the *Physical Review* and *Physical Review Letters*. This free, weekly, online publication has over 90,000 visits each month. During the summer of 2011, *Physical Review Focus* was incorporated within *Physics*, and additional enhancements are contemplated as part of the ongoing effort to help readers find papers of particular interest to them from among the over 18,000 that we publish in a year.

In 2011 we introduced Creative Commons licensing for our authors, and revenue from the associated open access article-processing charges will decrease the need for subscription income and help to keep the APS subscription price-per-article among the lowest of any physics journals. We continue to limit price increases by controlling our operational expenses and negotiating with our vendors, while keeping the quality and utility of our publications very high. We hope you will continue to choose to subscribe to our journals.

Gene D. Sprouse

A handwritten signature in black ink that reads "Gene D. Sprouse". The signature is written in a cursive style.

Editor in Chief
American Physical Society

CREATIVE COMMONS



As of 15 February 2011, authors in most *Physical Review* journals have a new alternative: to pay an article-processing charge whereby their accepted manuscripts are available barrier-free and open access on publication. These manuscripts are published under the terms of the Creative Commons Attribution 3.0 License (CC-BY), the most permissive of the CC licenses, granting authors and others the right to copy, distribute, transmit, and adapt the work, provided that proper credit is given. This new alternative is in addition to traditional subscription-funded publication; authors may choose one or the other for their accepted papers.

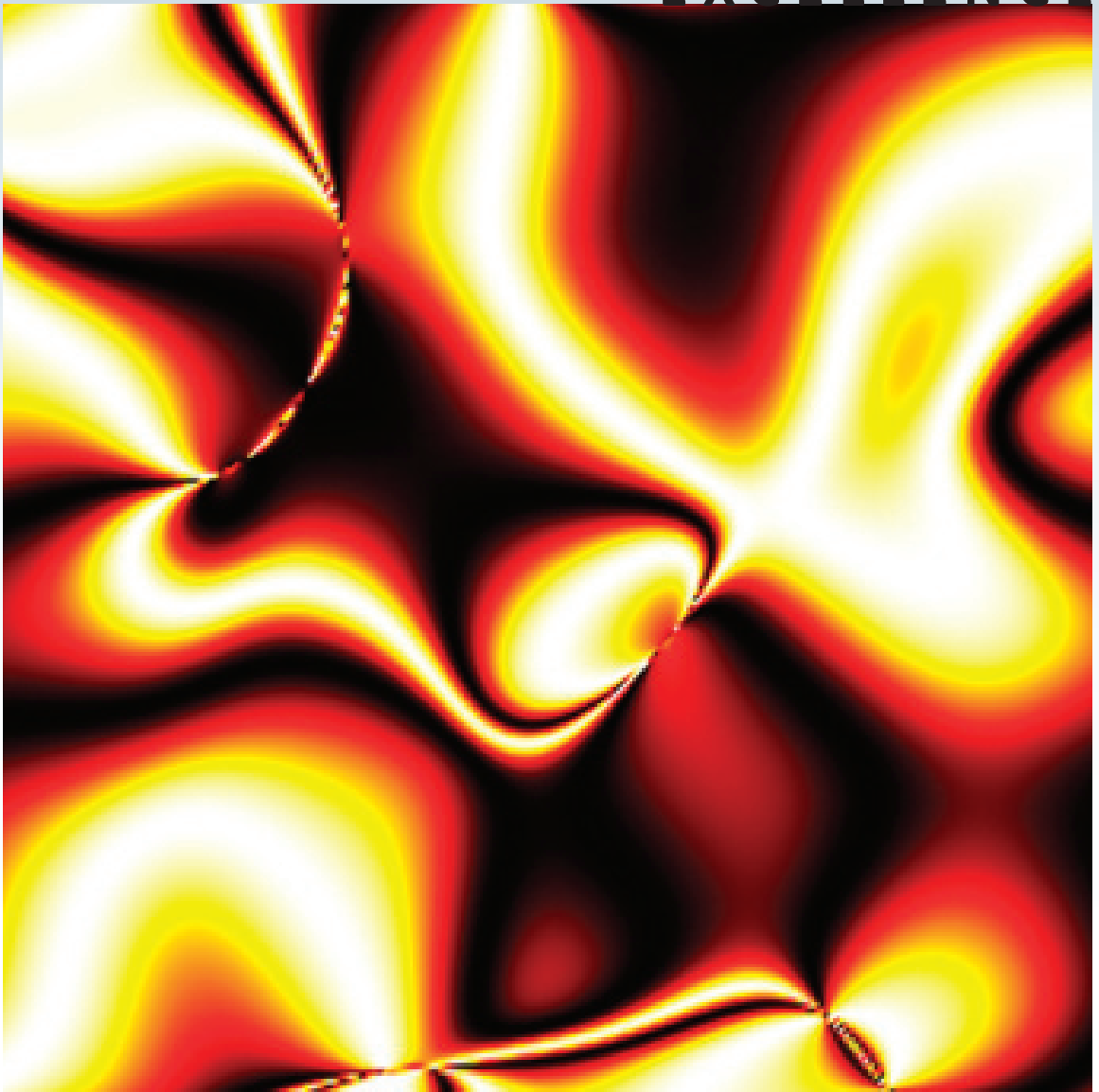
The new article-processing charges, which cover all costs and provide a sustainable funding model, have been set at \$1700 for papers in the *Physical Review* and \$2700 for those in *Physical Review Letters*. The resulting open access articles appear alongside and mixed in with subscription-funded articles, converting these journals into 'hybrid' open access journals.

"The most selective of our journals must have higher article-processing charges for their open access articles," said Gene D. Sprouse, APS Editor in Chief. "*Physical Review* accepts about 60% of articles submitted and *Physical Review Letters* roughly 25%, so the costs are higher than in less selective journals." Revenue from the article-processing charges will decrease the need for subscription income and help to keep the APS subscription price-per-article among the lowest of any physics journals. "We'd like to reduce the pressure on library subscriptions, while opening access more widely. Article-processing charges are a means to accomplish both," said Joseph W. Serene, APS Treasurer/Publisher.

Also as of 15 February, *Physical Review Special Topics - Accelerators and Beams* (PRST-AB) and *Physical Review Special Topics - Physics Education Research* (PRST-PER) had their full archives and all future papers made available under the CC-BY license, thereby converting both of these journals to 'gold' open access journals. PRST-PER's publication-charge scheme was realigned with the new program. PRST-AB continues to be funded by its sponsors. Finally, APS's Free to Read program was phased out, and all of these papers covered by the CC-BY license.

Journal Descriptions

EXCELLENCE



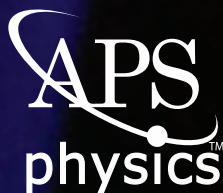
*Nematic liquid crystal dynamics under applied electric fields. [B. F. de Oliveira, P. P. Avelino, F. Moraes, and J. C. R. E. Oliveira, Phys. Rev. E **82**, 041707 (2010)]*

AMERICAN PHYSICAL SOCIETY'S
NEW OPEN ACCESS JOURNAL

PRX

Physical Review X
prx.aps.org

Scientific Excellence
Interdisciplinary Exchange
Expanding Access



PHYSICAL REVIEW X

<http://prx.aps.org/>

APS's Newest Journal

Physical Review X (PRX) is APS's online-only, fully open access journal. This peer-reviewed journal aims to rapidly publish those papers that meet the acceptance criteria of originality, high technical quality, scientific rigor, and high significance to the relevant fields. It covers all areas of pure, applied, and interdisciplinary physics. PRX brings valuable and innovative results to the broader physics readership.

PRX features

- Broad scope covering original research of wide impact in all areas of pure, applied, and interdisciplinary physics.
- High APS editorial standards, and an efficient review process.
- Flexible article lengths.
- High visibility, rapid publication after acceptance, and enhanced online content delivery.
- Scientific oversight by a distinguished, international, and topically broad Editorial Board.
- Global free access to all content supported by a \$1500 article-processing charge to authors or their institutions.



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Editor

Jorge Pullin
Louisiana State University

Associate Editor

Ling Miao
American Physical Society

2012 Publication Projections

Number of articles: 120
Number of pages: 960

2012 Publication Frequency

Volume 1 (12 issues)

ISSN

2160-3308 (online)

CODEN: PRXHAE



Richard Feynman

Explored Quantum Paths. Who Will Inspire You?

physics.aps.org

The American Physical Society's free online publication, *Physics*, provides thought-provoking analysis and spotlights exceptional research.



Physics

Physics *spotlighting exceptional research*

<http://physics.aps.org/>

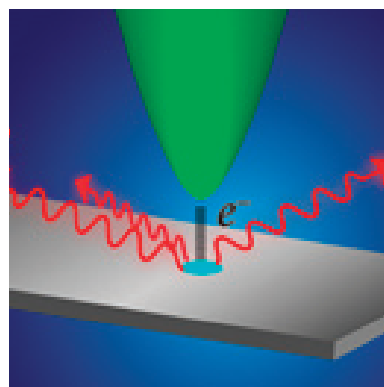
Each week, *Physics* highlights a select few of the most important and interesting papers from the family of *Physical Review* journals.

This free online publication offers commentaries written by prominent experts (*Viewpoints*) and brief, editor-written summaries (*Synopses*) of top research papers in all of the physics subfields. The website is also pleased to welcome *Focus** into its weekly content. *Focus* provides highly readable explanations of some of the most interesting papers, with a particular emphasis on developing the concepts students and non-experts need to understand modern research.

Physics strives to bring readers an informative, engaging and self-contained resource for keeping up with cutting edge research in their own fields and other sub-specialties. In addition to highlighting current research, the website occasionally features articles on significant papers from the *Physical Review* archive.

Readers can keep up with *Physics* by signing up for weekly email alerts or an RSS feed.

*Previously called *Physical Review Focus*, ISSN 1539-0748 (online) has now been retired. The full archive of *Focus* stories is available on the *Physics* website.



Mapping the luminescence of a single molecule. [Image Credit: Alan Stonebraker, Physics 3, 97 (2010)]

Editor

Jessica Thomas
American Physical Society

Editor of Focus

David Ehrenstein
American Physical Society

2012 Publication Projections

Number of articles: 300

2012 Publication Frequency

Volume 5 (weekly)

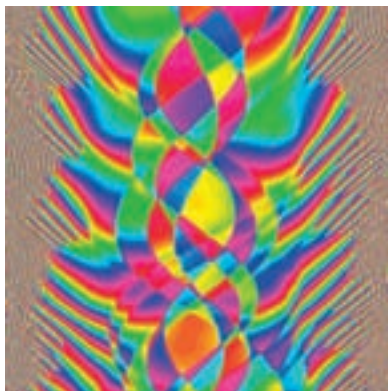
ISSN

1943-2879 (online)

CODEN: PHYSGM

PHYSICAL REVIEW LETTERS

<http://prl.aps.org/>



Phase domains during the evaporative cooling of an ultracold 1D Bose gas. The transient soliton pattern dissipates during thermalization. [E. Witkowska, P. Deuar, M. Gajda, and K. Rzążewski, *Phys. Rev. Lett.* **106**, 135301 (2011)]

ISI's Impact and Immediacy Data (2010)

Impact Factor: 7.621

Immediacy Index: 1.836

Physical Review Letters (PRL) is the premier APS journal for current research, providing rapid publication of short reports of important fundamental research in all fields of physics. The journal provides its diverse readership with weekly coverage of major advances in physics and cross-disciplinary developments. PRL's topical sections are devoted to general physics (including statistical and quantum mechanics, quantum information, etc.); gravitation and astrophysics; elementary particles and fields; nuclear physics; atomic, molecular, and optical physics; nonlinear dynamics, fluid dynamics, and classical optics; plasma and beam physics; condensed matter; and soft matter, biological, and interdisciplinary physics.

Abstracting/Indexing includes Chemical Abstracts, Computer & Control Abstracts, Current Physics Index, Electrical & Electronics Index, Energy Research Abstracts, GeoRef, INSPEC, International Aero-space Abstracts, Mathematical Reviews, Medline, Metals Abstracts, Nuclear Science Abstracts, Physics Abstracts, PubSCIENCE, SPIN, World Aluminum Abstracts.

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2012 Publication Projections

Number of articles: 3,460
Number of pages: 13,800

2012 Publication Frequency

Volumes 108, 109 (52 issues)

2011 CD-ROM Edition

\$60 per disk with journal subscription

ISSN

0031-9007 (print)
1079-7114 (online)
1092-0145 (CD-ROM)

CODEN: PRLTAO

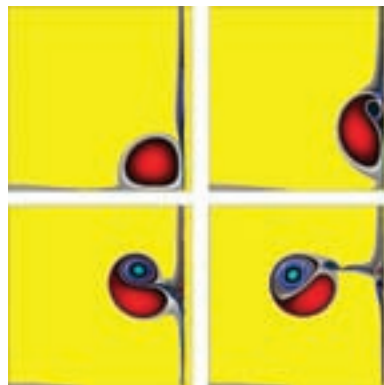
A current PRL subscription includes Access & Usage Statistics from 1958–2012.



PRL Editors' Suggestions

The editors of *Physical Review Letters* each week offer suggestions of papers that they hope will lead readers to explore other areas of physics. These are marked with a special icon that contains the printer's mark that used to appear on the covers of all sections of the *Physical Review*.

Recent Editors' Suggestions are found at <http://prl.aps.org/>; a list of all Editors' Suggestions can be found via a PROLA search.



*Computation of a two-dimensional flow at low viscosity shows a vortex crashing into a wall and then detaching after producing spiral structures. [Romain Nguyen van yen, Marie Farge, and Kai Schneider, Phys. Rev. Lett. **106**, 184502 (2011)]*

Reinvigorating Standards

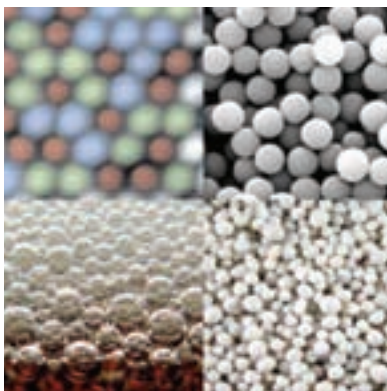
To ensure that PRL fulfills its mission, the editors continually work to reaffirm the high standard of quality for published Letters. Manuscripts submitted to PRL should be accounts of results that substantially advance a particular field, open a significant new area of research, or solve a critical outstanding problem. Published Letters should pave the way for notable progress, to move physics forward. A renewed focus on the PRL criteria by the entire community will lead to a better manuscript selection process.

Additional details are available at:

<http://prl.aps.org/edannounce/PhysRevLett.103.010001>

REVIEWS OF MODERN PHYSICS

<http://rmp.aps.org/>



Theoretical perspective on the glass transition and amorphous materials.
[Ludovic Berthier and Giulio Biroli, *Rev. Mod. Phys.* **83**, 587 (2011)]

ISI's Impact and Immediacy Data (2010)

Impact Factor: 51.695

Immediacy Index: 8.219

Reviews of Modern Physics (RMP) serves both students and senior researchers in a broad range of fields. Its review articles offer in-depth treatment of a research area, surveying recent work, and providing an introduction that is aimed at physics graduate students and nonspecialists. These reviews also feature bibliographies that are of great value to the specialist. The journal's shorter Colloquia describe recent work of interest to all physicists, especially work at the frontiers of physics, which may have an impact on several different subfields.

Abstracting/Indexing includes Chemical Abstracts, Computer & Control Abstracts, Current Physics Index, Electrical & Electronics Index, Energy Research Abstracts, Excerpta Medica, GeoRef, INSPEC, International Aerospace Abstracts, Mathematical Reviews, Nuclear Science Abstracts, Physics Abstracts, SPIN.

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Senior Assistant Editor

Debbie Brodbar
American Physical Society

Associate Editors

Available via
<http://rmp.aps.org/staff>

2012 Publication Projections

Number of articles: 44
Number of pages: 1,900

2012 Publication Frequency

Volume 84 (4 issues)

2011 CD-ROM Edition

\$60 per disk with journal subscription

ISSN

0034-6861 (print)
1539-0756 (online)
1538-4527 (CD-ROM)

CODEN: RMPHAT

A current RMP subscription includes Access & Usage Statistics from 1929–2012.

PHYSICAL REVIEW A

ATOMIC, MOLECULAR, AND OPTICAL PHYSICS

<http://pra.aps.org/>

Physical Review A (PRA) provides a dependable resource of worldwide developments in the rapidly evolving area of atomic, molecular, and optical physics and related fundamental concepts. The journal contains articles on quantum mechanics including quantum information theory, atomic and molecular structure and dynamics, collisions and interactions (including interactions with surfaces and solids), clusters (including fullerenes), atomic and molecular processes in external fields, matter waves (including Bose-Einstein condensation), and optics, both quantum and classical. The section on quantum optics, lasers, and nonlinear optics is the largest and continues to grow. Other sections, though smaller, are growing even more rapidly.

Abstracting/Indexing includes Computer & Control Abstracts, Current Physics Index, Electrical & Electronics Index, INSPEC, Physics Abstracts, PubScience, SPIN.

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University of Wisconsin

2012 Publication Projections

Number of articles: 3,300
Number of pages: 22,700

2012 Publication Frequency

Volumes 85, 86 (12 issues)

2011 CD-ROM Edition

\$60 per disk with
journal subscription

ISSN

1050-2947 (print)
1094-1622 (online)
1538-4446 (CD-ROM)

CODEN: PLRAAN

PRA KALEIDOSCOPE

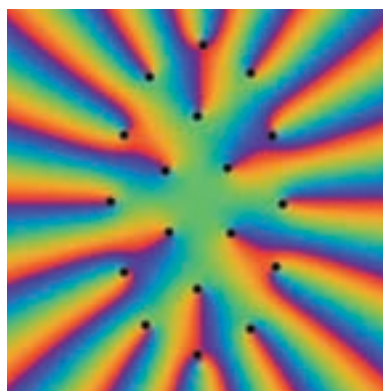
<http://pra.aps.org/kaleidoscope/>

Many *Physical Review A* articles contain images that not only convey important scientific information, but also are visually attractive. The editors showcase a selection of images from each issue in order to promote interest in the aesthetics of physics. Images are selected solely for their artistic appeal. Images from papers published recently appear on our main page and are also added to an archive.

ISI's Impact and Immediacy Data (2010)

Impact Factor: 2.861

Immediacy Index: 0.775



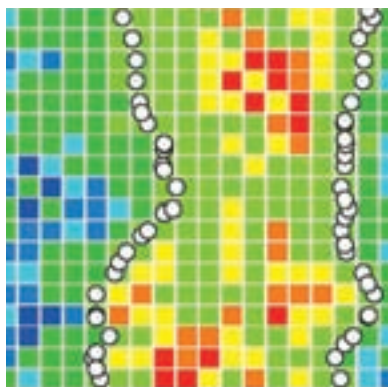
*Structural change of vortex patterns in anisotropic Bose-Einstein condensates. [N. Lo Gullo, Th. Busch, and M. Paternostro, Phys. Rev. A **83**, 053612 (2011)]*

A current PRA subscription includes Access & Usage Statistics from 1970–2012.

PHYSICAL REVIEW B

CONDENSED MATTER AND MATERIALS PHYSICS

<http://prb.aps.org/>



*Pseudogap phase in strongly disordered conventional superconductors. [X. T. Wu and R. Ikeda, Phys. Rev. B **83**, 104517 (2011)]*

Physical Review B (PRB) is the largest and most comprehensive international journal specializing in condensed matter and materials physics phenomena. PRB appears monthly in two sections, B1 and B15; each section is further divided into two parts.

B1: Structure, phase transitions, ferroelectrics, nonordered systems, liquids, quantum solids, magnetism, superconductivity, superfluidity.

B15: Electronic structure, photonic crystals, semiconductors, mesoscopic systems, surfaces, clusters, fullerenes, graphene, nanoscience.

Abstracting/Indexing includes Abstract Bulletin of the Institute of Paper Chemistry, Chemical Abstracts, Computer & Control Abstracts, Current Physics Index, Electrical & Electronics Index, Energy Research Abstracts, GeoRef, INSPEC, International Aerospace Abstracts, Mathematical Reviews, Metals Abstracts, Nuclear Science Abstracts, Physics Abstracts, SPIN, World Aluminum Abstracts.

ISI's Impact and Immediacy Data (2010)

Impact Factor: 3.772

Immediacy Index: 0.954

Editors

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American Physical Society

Anthony M. Begley
American Physical Society

Associate Editors

Julie Kim-Zajonz
American Physical Society

Kelvin G. Lynn
Washington State University

Willes H. Weber
American Physical Society

2012 Publication Projections

Number of articles: 6,375
Number of pages: 48,500

2012 Publication Frequency

Volumes 85, 86 (48 issues)

2011 CD-ROM Edition

\$60 per disk with
journal subscription

ISSN

1098-0121 (print)
1550-235X (online)
1538-4489 (CD-ROM)

CODEN: PRBMDO

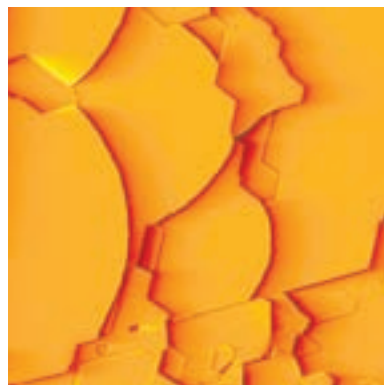
A current PRB subscription includes Access & Usage Statistics from 1970–2012.



PRB Editors' Suggestions

Editors' Suggestions are a list of a small number of papers published in PRB that the editors and referees find of particular interest, importance, or clarity. These papers are marked with a special icon that contains the printer's mark that used to appear on the covers of all sections of the *Physical Review*.

Recent Editors' Suggestions are found at <http://prb.aps.org/>; a list of all Editors' Suggestions can be found via a PROLA search.



*Homoepitaxial growth on Ir(111). [Sebastian Bleikamp, Johann Coraux, Odile Robach, Gilles Renaud, and Thomas Michely, Phys. Rev. B **83**, 064103 (2011)]*

PRB KALEIDOSCOPE

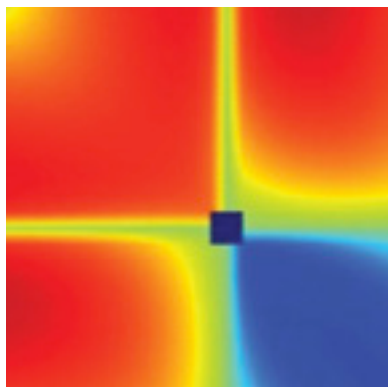
<http://prb.aps.org/kaleidoscope/>

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PHYSICAL REVIEW C

NUCLEAR PHYSICS

<http://prc.aps.org/>



Decoupling of spurious deeply bound states with the similarity renormalization group.
[K. A. Wendt, R. J. Furnstahl, and R. J. Perry,
Phys. Rev. C **83**, 034005 (2011)]

ISI's Impact and Immediacy Data (2010)

Impact Factor: 3.416

Immediacy Index: 0.811

Physical Review C (PRC) contains research articles reporting experimental and theoretical results in all aspects of nuclear physics, including the nucleon-nucleon interaction, few-body systems, nuclear structure, nuclear reactions, relativistic nuclear collisions, hadronic physics and QCD, electroweak interactions, symmetries, and nuclear astrophysics.

Abstracting/Indexing includes Chemical Abstracts, Computer & Control Abstracts, Current Physics Index, Electrical & Electronics Index, Energy Research Abstracts, INSPEC, International Aerospace.

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2012 Publication Projections

Number of articles: 1,090
Number of pages: 9,600

2012 Publication Frequency

Volumes 85, 86 (12 issues)

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0556-2813 (print)
1089-490X (online)
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PHYSICAL REVIEW D

PARTICLES, FIELDS, GRAVITATION, AND COSMOLOGY

<http://prd.aps.org/>

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D15: Covers general relativity, quantum theory of gravitation, cosmology, particle astrophysics, formal aspects of theory of particles and fields, and general and formal development in gauge field theories and string theory.

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2012 Publication Projections

Number of articles: 3,220
Number of pages: 37,500

2012 Publication Frequency

Volumes 85, 86 (24 issues)

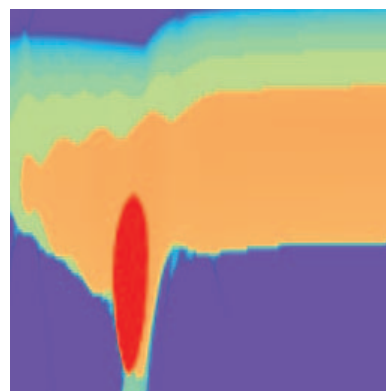
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1550-2368 (online)
1538-4500 (CD-ROM)

CODEN: PRVDAQ



Floquet exponent μ_x for solutions of Eq. (22) with different values of g^2/λ and $k/a(t)$. [Marcelo Gleiser, Noah Graham, and Nikitas Stamatopoulos, *Phys. Rev. D* **83**, 096010 (2011)]

ISI's Impact and Immediacy Data (2010)

Impact Factor: 4.964

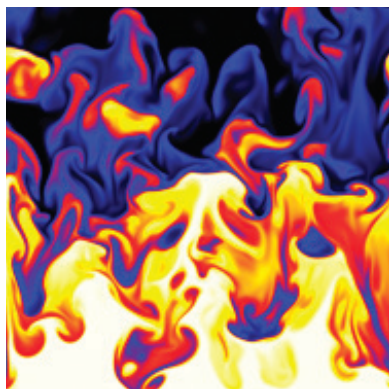
Immediacy Index: 1.557

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PHYSICAL REVIEW E

STATISTICAL, NONLINEAR, AND SOFT MATTER PHYSICS

<http://pre.aps.org/>



Effects of polymer additives on Rayleigh-Taylor turbulence. [G. Boffetta, A. Mazzino, and S. Musacchio, *Phys. Rev. E* **83**, 056318 (2011)]

ISI's Impact and Immediacy Data (2010)

Impact Factor: 2.352

Immediacy Index: 0.530

PRE KALEIDOSCOPE

<http://pre.aps.org/kaleidoscope/>

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2012 Publication Projections

Number of articles: 2,320
Number of pages: 19,800

2012 Publication Frequency

Volumes 85, 86 (12 issues)

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1538-4519 (CD-ROM)

CODEN: PLEEE8

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2012 Publication Projections

Number of articles: 160
Number of pages: 1,600

2012 Publication Frequency

Volume 15 (12 issues)

2012 Institutional Subscription Rates

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ISSN

1098-4402 (online)

CODEN: PRABFM

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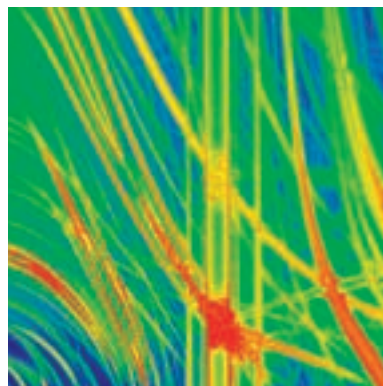
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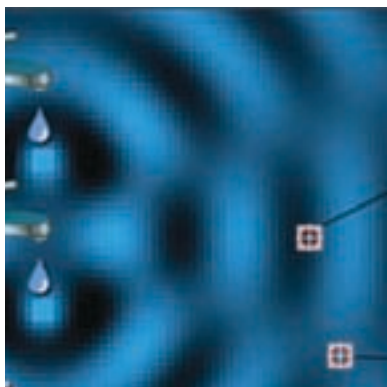
Immediacy Index: 0.352



*Application of frequency map analysis to beam-beam effects study in crab waist collision scheme. [Dmitry Shatilov, Eugene Levichev, Evgeny Simonov, and Mikhail Zobov, Phys. Rev. ST Accel. Beams **14**, 014001 (2011)]*

PHYSICAL REVIEW SPECIAL TOPICS— PHYSICS EDUCATION RESEARCH

<http://prst-per.aps.org/>



Two source interference of water waves. Fuzzy lines represent nodal lines where wave amplitude is zero. Detectors are placed in an area of large wave activity and on a nodal line, resulting in a large amplitude curve and a flat line on the detector graphs, respectively. [Noah S. Podolefsky, Katherine K. Perkins, and Wendy K. Adams, Phys. Rev. ST Phys. Educ. Res. 6, 020117 (2010)]

ISI's Impact and Immediacy Data (2010)

Impact Factor: 2.302

Immediacy Index: 0.368

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2012 Publication Projections

Number of articles: 42
Number of pages: 480

2012 Publication Frequency

Volume 8 (2 issues)

2012 Institutional Subscription Rates

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ISSN

1554-9178 (online)

CODEN: PRSTCR

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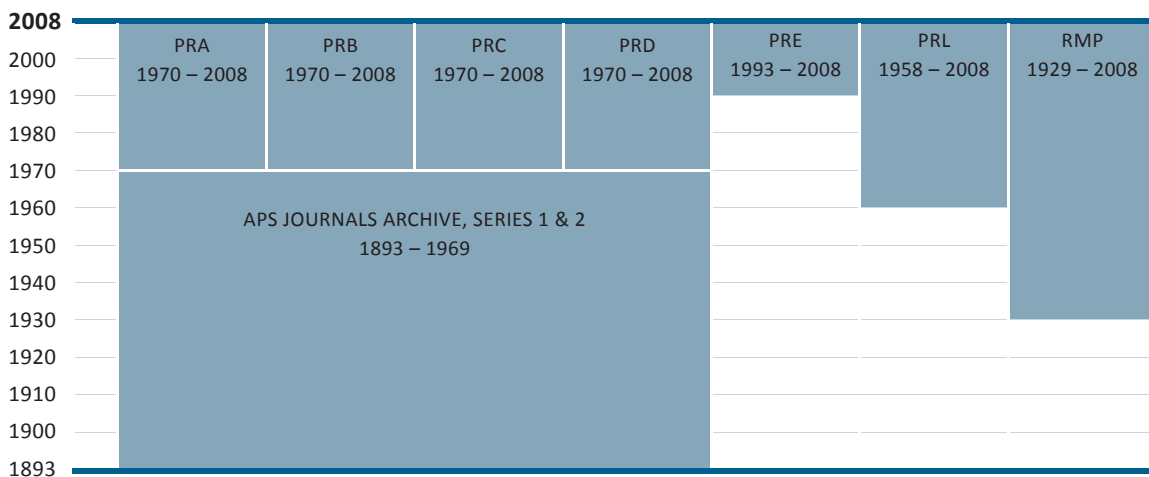
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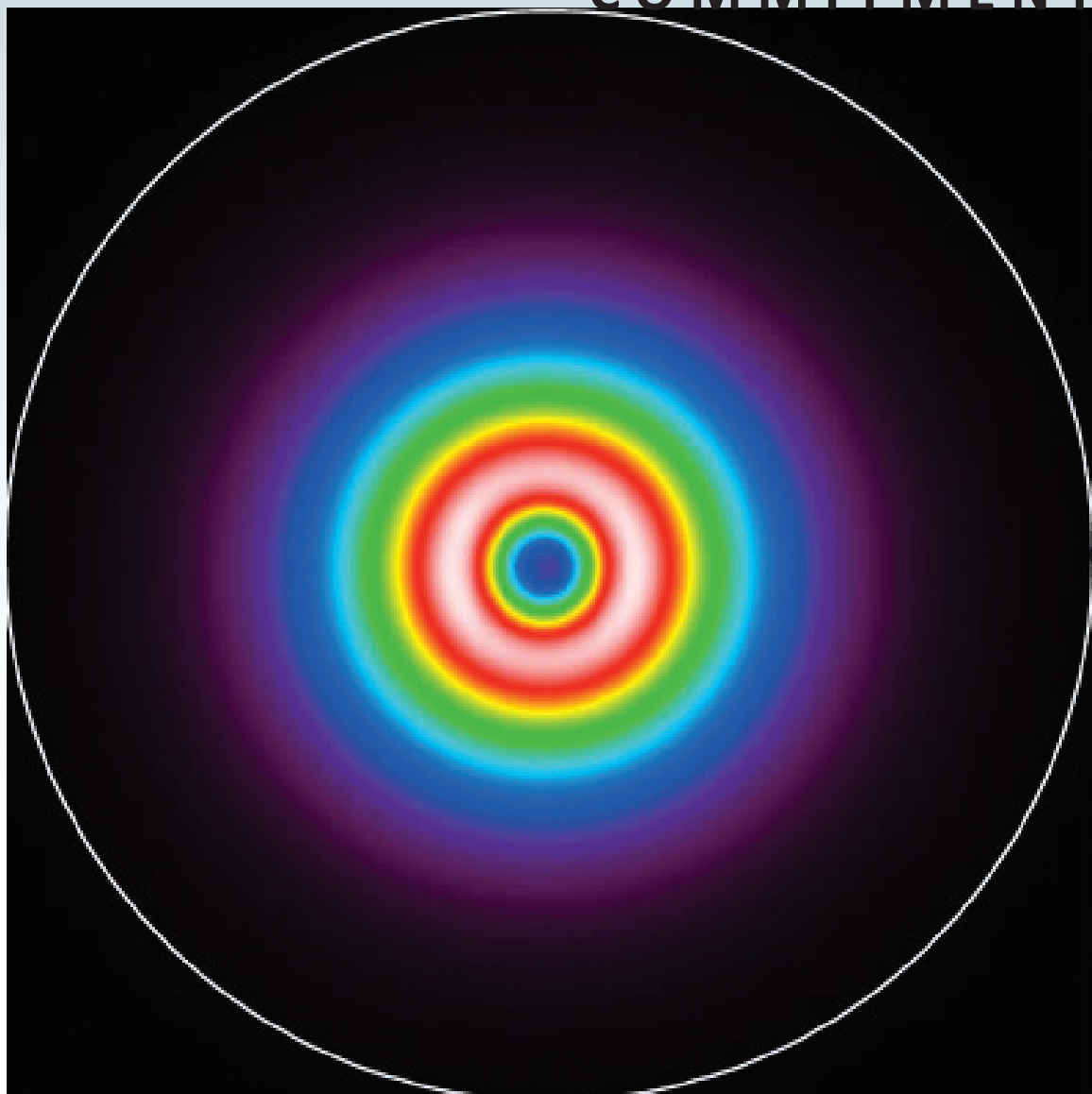
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*Spin-magnetization distribution around the Co atom in the superconducting weak ferromagnet Y_4Co_3 . [B. Wiendlocha, J. Tobola, S. Kaprzyk, and A. Kolodziejczyk, Phys. Rev. B **83**, 094408 (2011)]*

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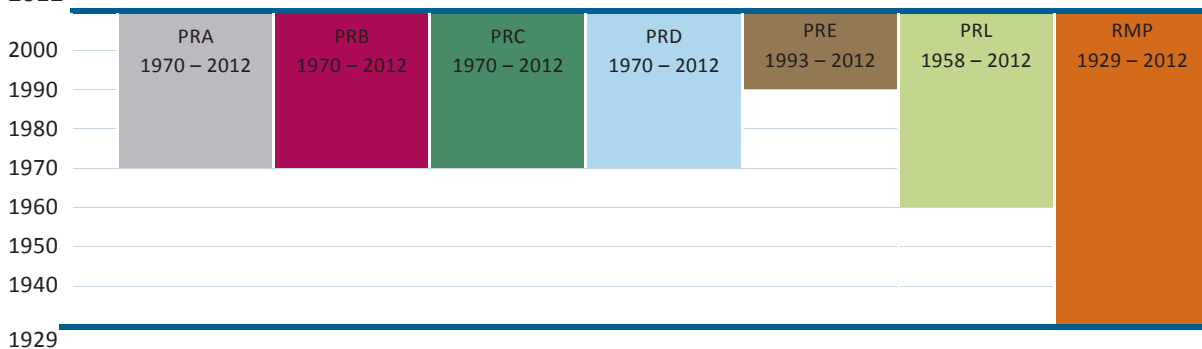
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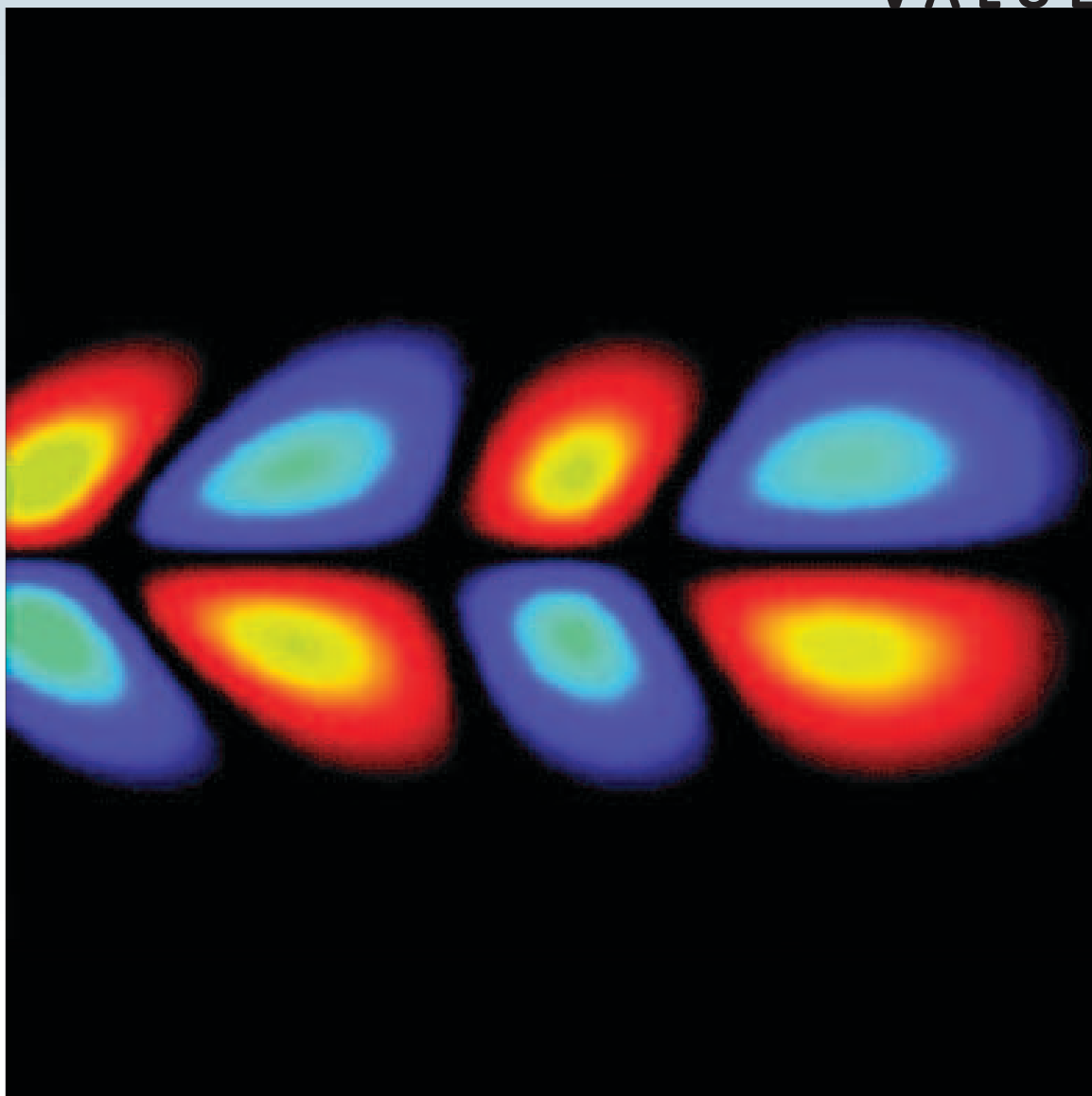
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*Physics considerations for laser-plasma linear colliders. [C. B. Schroeder, E. Esarey, C. G. R. Geddes, C. Benedetti, and W. P. Leemans, Phys. Rev. ST Accel. Beams **13**, 101301 (2010)]*

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| PR-All Combination Package | \$17,500 | \$23,040 | \$24,920 | \$25,150 | \$21,875 |
| APS-All Combination Package | \$21,515 | \$28,475 | \$30,710 | \$31,090 | |

CLASSIFICATION: LARGE RESEARCH INSTITUTIONS - TIER 4

| FORMAT | ONLINE ONLY | ONLINE + PRINT | ONLINE + PRINT | ONLINE + PRINT | MICROFICHE |
|--|-------------|----------------|-------------------|----------------|------------|
| Postage | | Domestic* | Foreign Surface** | Airfreight*** | + ONLINE |
| Physical Review A | \$4,065 | \$4,940 | \$5,200 | \$5,245 | |
| Physical Review B | \$9,580 | \$12,070 | \$12,790 | \$12,895 | |
| Physical Review C | \$1,780 | \$2,235 | \$2,360 | \$2,375 | |
| Physical Review D | \$7,060 | \$8,555 | \$8,990 | \$9,055 | |
| Physical Review E | \$4,645 | \$5,940 | \$6,280 | \$6,280 | |
| Physical Review Letters | \$4,685 | \$5,890 | \$6,200 | \$6,340 | \$5,855 |
| Reviews of Modern Physics | \$870 | \$1,080 | \$1,125 | \$1,135 | \$1,090 |
| Physical Review Online Archive (PROLA) | \$735 | | | | |
| PR-All Combination Package | \$21,470 | \$27,010 | \$28,890 | \$29,120 | \$26,840 |
| APS-All Combination Package | \$26,525 | \$33,485 | \$35,720 | \$36,100 | |

CLASSIFICATION: VERY LARGE RESEARCH INSTITUTIONS - TIER 5

| FORMAT | ONLINE ONLY | ONLINE + PRINT | ONLINE + PRINT | ONLINE + PRINT | MICROFICHE |
|--|-------------|----------------|-------------------|----------------|------------|
| Postage | | Domestic* | Foreign Surface** | Airfreight*** | + ONLINE |
| Physical Review A | \$4,425 | \$5,300 | \$5,560 | \$5,605 | |
| Physical Review B | \$10,430 | \$12,920 | \$13,640 | \$13,745 | |
| Physical Review C | \$1,950 | \$2,405 | \$2,530 | \$2,545 | |
| Physical Review D | \$7,700 | \$9,195 | \$9,630 | \$9,695 | |
| Physical Review E | \$4,910 | \$6,205 | \$6,545 | \$6,545 | |
| Physical Review Letters | \$5,085 | \$6,290 | \$6,600 | \$6,740 | \$6,355 |
| Reviews of Modern Physics | \$950 | \$1,160 | \$1,205 | \$1,215 | \$1,190 |
| Physical Review Online Archive (PROLA) | \$800 | | | | |
| PR-All Combination Package | \$23,365 | \$28,905 | \$30,785 | \$31,015 | \$29,205 |
| APS-All Combination Package | \$28,900 | \$35,860 | \$38,095 | \$38,475 | |

NOTES:

1. PR-All includes: PRA-PRE, PRST-AB, PRST-PER, & PROLA
2. APS-All includes: PRA-PRE, PRL, RMP, PRST-AB, PRST-PER, & PROLA
3. Subscription to PROLA at listed prices requires concurrent subscription to at least one APS Journal.
\$2,150 for PROLA without at least one APS journal subscription.
4. PROLA is included with PR-All and APS-All.
5. Surface freight not available for Physical Review E.
6. Microfiche is only available for PRL, RMP, and PR-All.
7. All payments in U.S. Dollars.

*Domestic (U.S. and Possessions)

**Foreign Surface (Canada, Mexico, Central and South America, and Caribbean)

***Airfreight (Europe, Asia, Middle East, Africa, and Oceania)

2012 COMBINATION SUBSCRIPTIONS

APS-AII INCLUDES:

Physical Review A, B, C, D, and E
 Physical Review Letters
 Reviews of Modern Physics
 Physical Review Special Topics—Accelerators and Beams
 Physical Review Special Topics—Physics Education Research
 Physical Review Online Archive (PROLA)

| FORMAT | ONLINE ONLY | ONLINE + PRINT | ONLINE + PRINT | ONLINE + PRINT |
|---------|-------------|----------------|-------------------|----------------|
| Postage | | Domestic* | Foreign Surface** | Airfreight*** |
| Tier 1 | \$11,385 | \$18,345 | \$20,580 | \$20,960 |
| Tier 2 | \$15,010 | \$21,970 | \$24,205 | \$24,585 |
| Tier 3 | \$21,515 | \$28,475 | \$30,710 | \$31,090 |
| Tier 4 | \$26,525 | \$33,485 | \$35,720 | \$36,100 |
| Tier 5 | \$28,900 | \$35,860 | \$38,095 | \$38,475 |

PR-AII INCLUDES:

Physical Review A, B, C, D, and E
 Physical Review Special Topics—Accelerators and Beams
 Physical Review Special Topics—Physics Education Research
 Physical Review Online Archive (PROLA)

| FORMAT | ONLINE ONLY | ONLINE + PRINT | ONLINE + PRINT | ONLINE + PRINT | MICROFICHE |
|---------|-------------|----------------|-------------------|----------------|------------|
| Postage | | Domestic* | Foreign Surface** | Airfreight*** | + ONLINE |
| Tier 1 | \$9,450 | \$14,990 | \$16,870 | \$17,100 | \$11,815 |
| Tier 2 | \$12,335 | \$17,875 | \$19,755 | \$19,985 | \$15,420 |
| Tier 3 | \$17,500 | \$23,040 | \$24,920 | \$25,150 | \$21,875 |
| Tier 4 | \$21,470 | \$27,010 | \$28,890 | \$29,120 | \$26,840 |
| Tier 5 | \$23,365 | \$28,905 | \$30,785 | \$31,015 | \$29,205 |

*Domestic (U.S. and Possessions)

**Foreign Surface (Canada, Mexico, Central and South America, and Caribbean)

***Airfreight (Europe, Asia, Middle East, Africa, and Oceania)

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Prices are as follows:

| Postage | Domestic* | Foreign Surface** | Airfreight*** |
|---------------------------|-----------|-------------------|---------------|
| Physical Review A | \$1,050 | \$1,310 | \$1,355 |
| Physical Review B | \$2,530 | \$3,250 | \$3,355 |
| Physical Review C | \$480 | \$605 | \$620 |
| Physical Review D | \$1,790 | \$2,225 | \$2,290 |
| Physical Review E | \$1,240 | \$1,580 | \$1,580 |
| Physical Review Letters | \$1,250 | \$1,560 | \$1,700 |
| Reviews of Modern Physics | \$230 | \$275 | \$285 |

*Domestic (U.S. and Possessions)

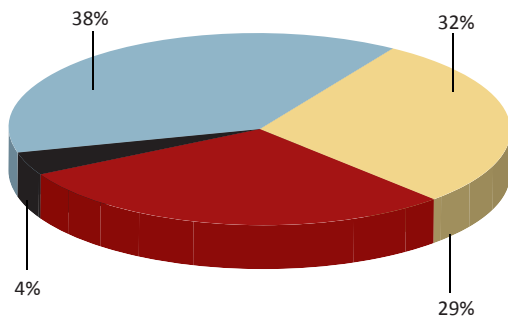
**Foreign Surface (Canada, Mexico, Central and South America, and Caribbean)

***Airfreight (Europe, Asia, Middle East, Africa, and Oceania)

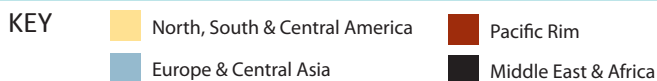
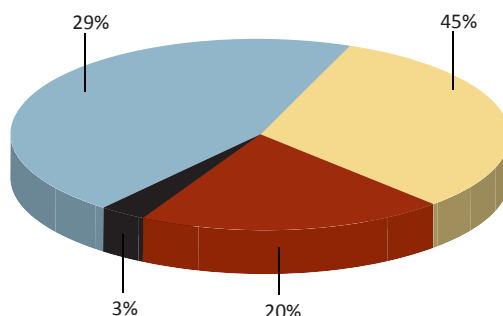
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2010 MANUSCRIPTS RECEIVED



2010 MANUSCRIPTS PUBLISHED



PRICE-PER-PAGE AND PRICE-PER-ARTICLE FOR PR-AII + PRL

| Year | Manuscripts Received | Manuscripts Published | Pages Published | Tier 1 Online Only Price-per-Page (\$U.S.) | Tier 4 Online Only Price-per-Page (\$U.S.) | Tier 1 Online Only Price-per-Article Published (\$U.S.) | Tier 4 Online Only Price-per-Article Published (\$U.S.) |
|-------|----------------------|-----------------------|-----------------|--|--|---|---|
| 2001 | 25,225 | 14,631 | 104,379 | 0.113 | | 0.806 | |
| 2002 | 25,809 | 16,418 | 119,885 | 0.105 | | 0.768 | |
| 2003 | 27,274 | 14,687 | 106,785 | 0.118 | 0.170 | 0.858 | 1.236 |
| 2004 | 28,687 | 16,067 | 117,719 | 0.112 | 0.169 | 0.819 | 1.239 |
| 2005 | 30,323 | 17,843 | 132,564 | 0.096 | 0.149 | 0.715 | 1.110 |
| 2006 | 31,566 | 17,442 | 130,296 | 0.095 | 0.155 | 0.710 | 1.158 |
| 2007 | 32,991 | 17,384 | 131,038 | 0.092 | 0.159 | 0.691 | 1.197 |
| 2008 | 34,388 | 18,660 | 143,981 | 0.083 | 0.149 | 0.644 | 1.149 |
| 2009 | 35,052 | 18,322 | 141,809 | 0.078 | 0.153 | 0.603 | 1.182 |
| 2010 | 32,523 | 18,760 | 149,520 | 0.075 | 0.156 | 0.595 | 1.241 |
| 2011* | 34,474 | 18,986 | 151,300 | 0.074 | 0.163 | 0.594 | 1.300 |
| 2012* | 36,543 | 19,539 | 153,800 | 0.075 | 0.165 | 0.588 | 1.339 |

*estimated



APS REDEFINES LENGTH (JULY 2011): HOW MUCH IS A PICTURE WORTH?

A goal for Letters and short papers is to communicate key results and findings efficiently and concisely. Authors work hard in many cases to maximize the material presented within the constraints of the printed page. Since page formatting occurs after scientific review, and despite conscientious attempts by many authors to adhere to APS style when submitting their work, formatting changes are often required; our current scheme to estimate length, in spite of our best efforts, is fairly inaccurate. This naturally leads to frustration, especially when authors are faced with the arduous task of further editing and revising their work during the proof stage, which sometimes leads to concessions in the clarity of the text and the quality and quantity of referencing. The tension between clearly communicating the primary research results of an investigation and giving proper attribution to prior literature frequently leads to compromises that can be detrimental to physics research.

Technological changes have moved publishing to electronic-first publication where the print version has been relegated to simply another display mode. Distribution in HTML and EPUB formats, for example, changes the reading environment and reduces the need for strict pagination. Therefore, in an effort to streamline the calculation of length, the APS journals will no longer use the printed page as the determining factor for length. Instead the journals will now use word counts (or word equivalents for tables, figures, and equations) to establish length; for details please see <http://publish.aps.org/authors/length-guide>. The title, byline, abstract, acknowledgment, and references will not be included in these counts allowing authors the freedom to appropriately credit coworkers, funding sources, and the previous literature, bringing all relevant references to the attention of readers. This new method for determining length will be easier for authors to calculate in advance, and lead to fewer length-associated revisions in proof, yet still retain the quality of concise communication that is a virtue of short papers.

We will also use this opportunity to integrate references contained in Supplemental Material into the paper. This will expand the ease by which readers can gain a broad perspective over the relevant literature and help to ensure that these articles receive the credit they deserve.

This new method for constraining length was implemented on 11 July 2011. You may spot the effect of this change mainly in PRL where we fully expect to see a good number of Letters run onto a fifth page. We hope that authors will find this method easier to use, and that it will reduce delays in the review and proof stages and lead to more comprehensive referencing. The relative efficiency of this scheme, together with other ongoing efforts to control our operational expenses, also allows the APS subscription price-per-article, which we strive to keep among the lowest of any physics journals, to be unaffected by this change.

A picture is worth 170 words, not one thousand, according to our scheme.

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