


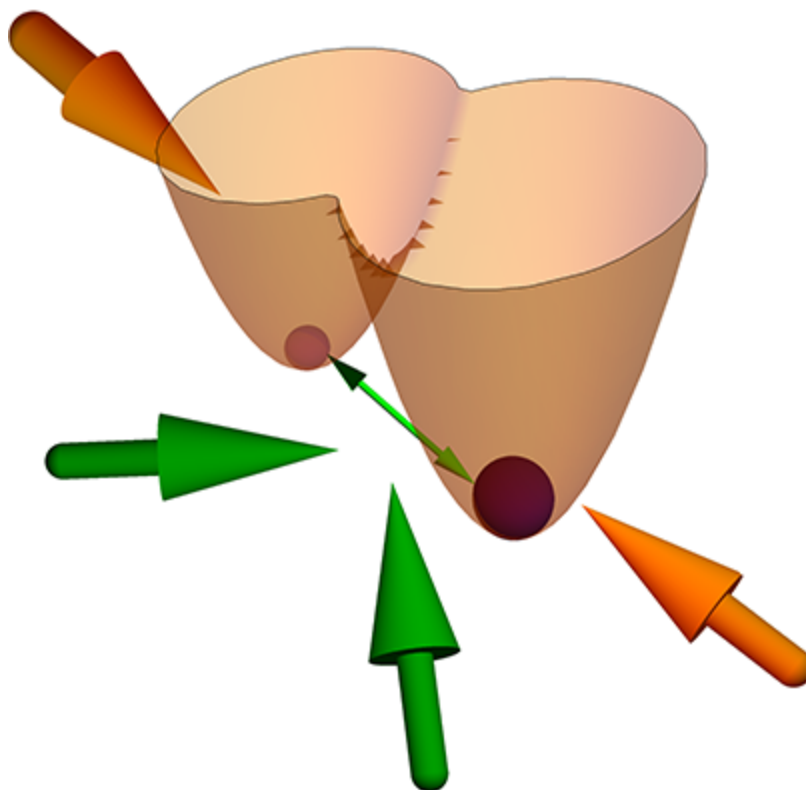


## [PHYSICAL REVIEW LETTERS \(/PRL/\)](/PRL/)

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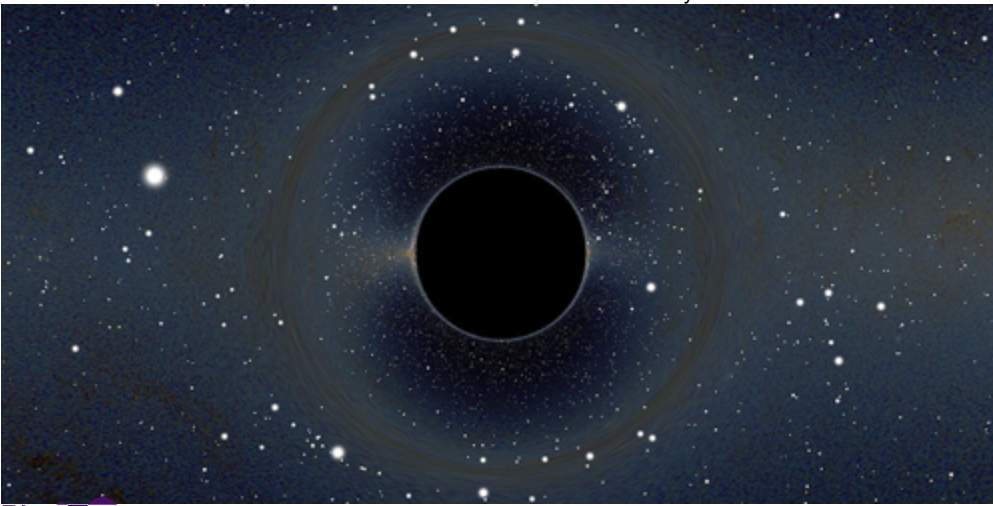
### EDITORS' SUGGESTION

[Momentum-Space Josephson Effects \(/prl/abstract/10.1103/PhysRevLett.120.120401\)](/prl/abstract/10.1103/PhysRevLett.120.120401/)

An analogy to the Josephson effect, but in momentum space, is proposed in a spin-orbit-coupled Bose-Einstein condensate.

Junpeng Hou *et al.*

[Phys. Rev. Lett. \*\*120\*\*, 120401 \(2018\) \(/prl/abstract/10.1103/PhysRevLett.120.120401\)](/prl/abstract/10.1103/PhysRevLett.120.120401/)



Physics (<https://physics.aps.org/>) NEWS AND COMMENTARY

[Cosmic Instability Could Have Created Dark Matter \(https://physics.aps.org/synopsis-for/10.1103/PhysRevLett.120.121301\)](https://physics.aps.org/synopsis-for/10.1103/PhysRevLett.120.121301)

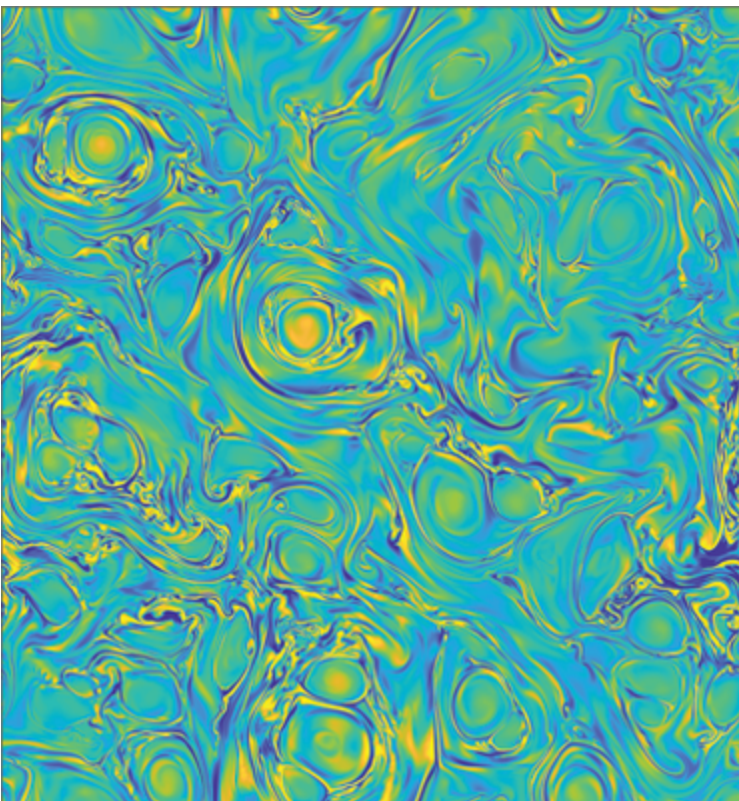
March 23, 2018

A proposed instability in the Higgs field could have seeded the Universe with primordial black holes that now serve as dark matter.

Synopsis on:

J. R. Espinosa, D. Racco, and A. Riotto

[Phys. Rev. Lett. \*\*120\*\*, 121301 \(2018\) \(/prl/abstract/10.1103/PhysRevLett.120.121301\)](https://prl/abstract/10.1103/PhysRevLett.120.121301)



**ON THE COVER**

[Coherent Structures and Spectral Energy Transfer in Turbulent Plasma: A Space-Filter Approach \(/prl/abstract/10.1103/PhysRevLett.120.125101\)](https://prl/abstract/10.1103/PhysRevLett.120.125101)

March 22, 2018

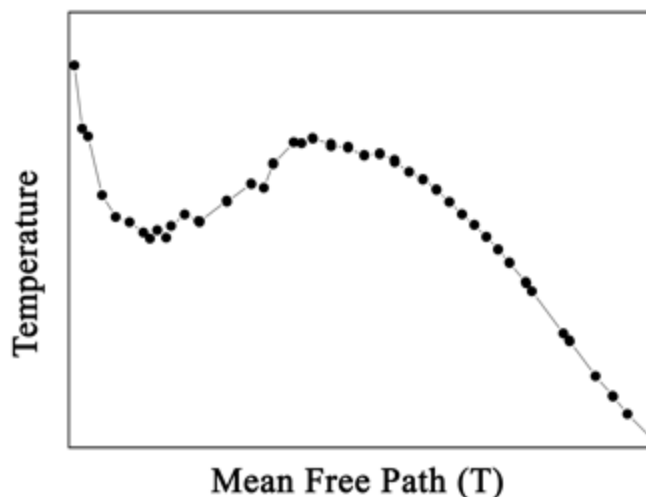
Coherent structures in the out-of-plane magnetic field in a 2D two-fluid magnetohydrodynamics simulation of a turbulent plasma.

E. Camporeale, L. Sorriso-Valvo, F. Califano, and A. Retinò

[Phys. Rev. Lett. \*\*120\*\*, 125101 \(2018\) \(/prl/abstract/10.1103/PhysRevLett.120.125101\)](#)

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| [More Covers \(/prl/covers\)](#)



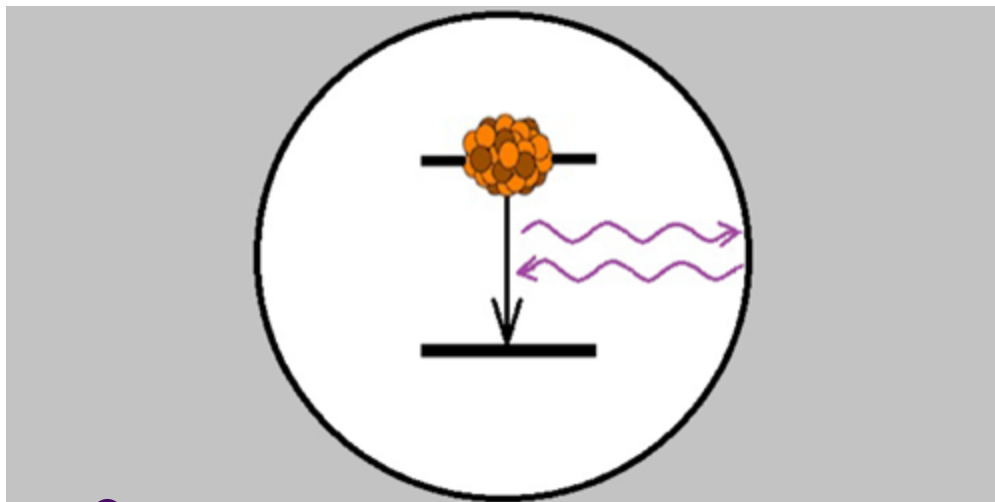
#### EDITORS' SUGGESTION

[Thermal Transport and Phonon Hydrodynamics in Strontium Titanate \(/prl/abstract/10.1103/PhysRevLett.120.125901\)](#)

In strontium titanate phonons drift like a cloud under the influence of a thermal gradient.

Valentina Martelli *et al.*

[Phys. Rev. Lett. \*\*120\*\*, 125901 \(2018\) \(/prl/abstract/10.1103/PhysRevLett.120.125901\)](#)



Physics (<https://physics.aps.org/>) NEWS AND COMMENTARY

[Controlling the Rate of Nuclear Decay](https://physics.aps.org/synopsis-for/10.1103/PhysRevLett.120.122501) (<https://physics.aps.org/synopsis-for/10.1103/PhysRevLett.120.122501>)

March 21, 2018

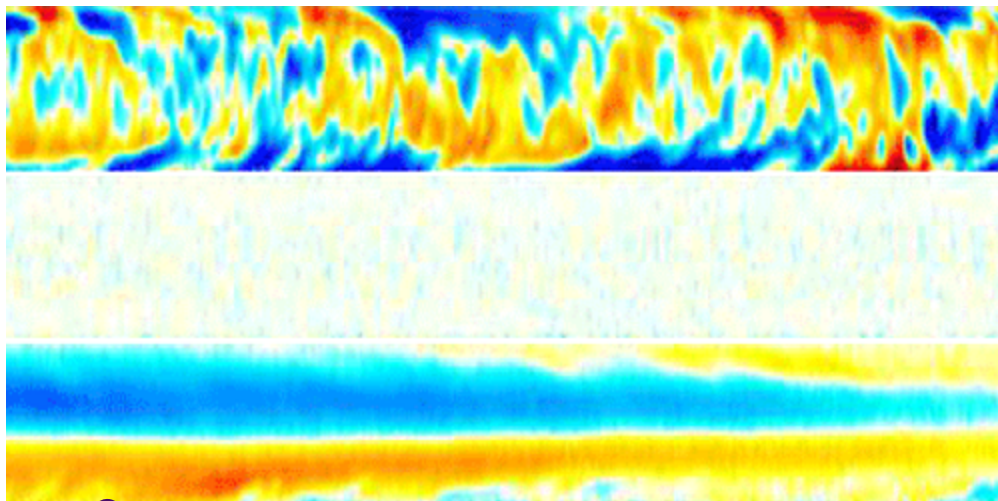
The rate of a nuclear transition of thorium-229 can be controlled by placing the atom in a cavity or in a thin film—an effect that could lead to ultraprecise nuclear clocks.

Synopsis on:

E. V. Tkalya

[Phys. Rev. Lett. \*\*120\*\*, 122501 \(2018\)](https://prl/abstract/10.1103/PhysRevLett.120.122501) ([/prl/abstract/10.1103/PhysRevLett.120.122501](https://prl/abstract/10.1103/PhysRevLett.120.122501))

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**Physics** (<https://physics.aps.org/>) NEWS AND COMMENTARY

[Polymers Reduce Drag More than Expected](https://link.aps.org/doi/10.1103/Physics.11.29) (<https://link.aps.org/doi/10.1103/Physics.11.29>)

March 19, 2018

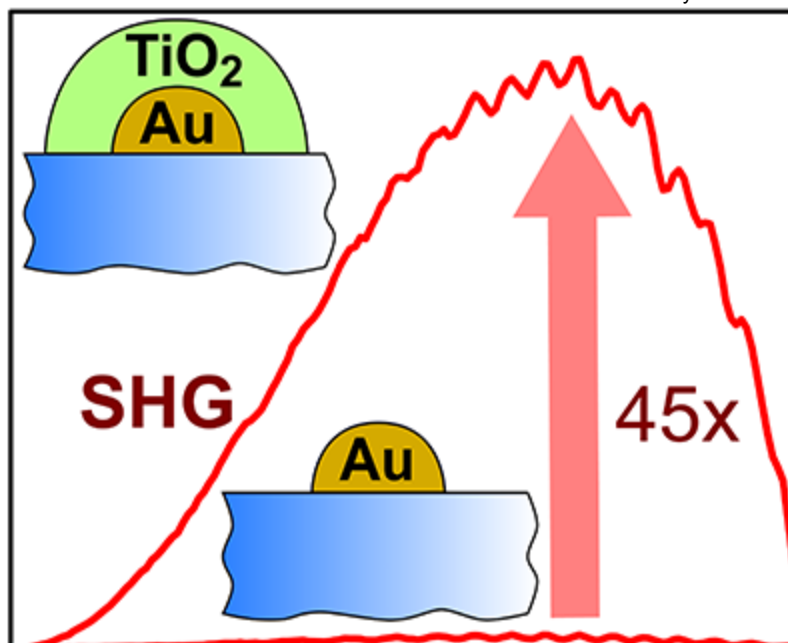
Adding polymer to a liquid was thought to reduce drag only up to a point, but new experiments have found exceptions to the usual limit.

Viewpoint on:

George H. Choueiri, Jose M. Lopez, and Björn Hof

[Phys. Rev. Lett. \*\*120\*\*, 124501 \(2018\)](https://prl/abstract/10.1103/PhysRevLett.120.124501) ([/prl/abstract/10.1103/PhysRevLett.120.124501](https://prl/abstract/10.1103/PhysRevLett.120.124501))

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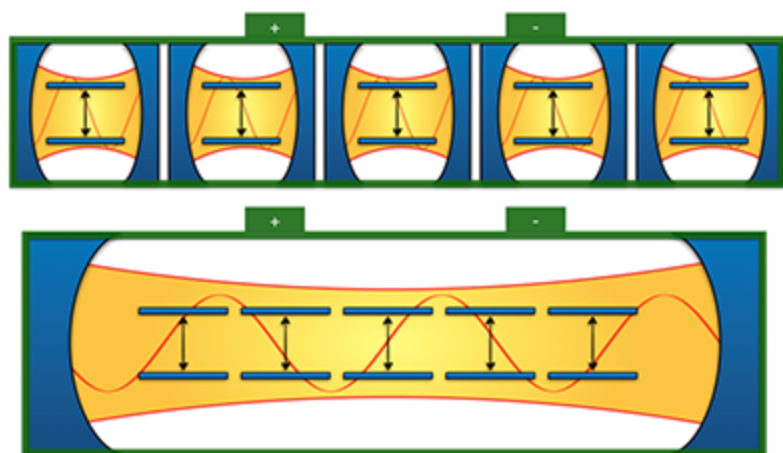
**EDITORS' SUGGESTION**

[Nonresonant Local Fields Enhance Second-Harmonic Generation from Metal Nanoislands with Dielectric Cover](https://prl/abstract/10.1103/PhysRevLett.120.113902) ([/prl/abstract/10.1103/PhysRevLett.120.113902](https://prl/abstract/10.1103/PhysRevLett.120.113902))

Second-harmonic generation from Au metal nanoislands is significantly enhanced by covering the nanoislands with a thin dielectric film of titanium dioxide.

Semyon Chervinskii *et al.*

[Phys. Rev. Lett. 120, 113902 \(2018\)](https://prl/abstract/10.1103/PhysRevLett.120.113902) ([/prl/abstract/10.1103/PhysRevLett.120.113902](https://prl/abstract/10.1103/PhysRevLett.120.113902))

**EDITORS' SUGGESTION**

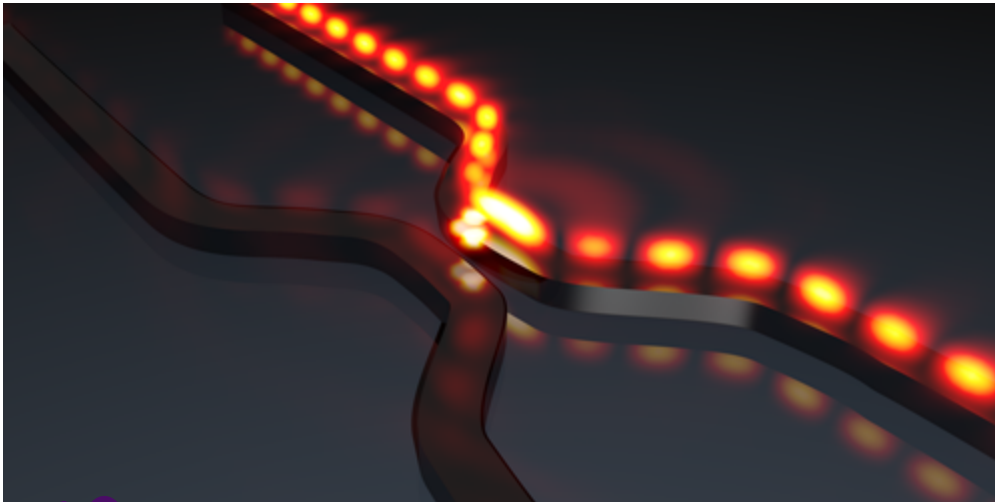
[High-Power Collective Charging of a Solid-State Quantum Battery](https://prl/abstract/10.1103/PhysRevLett.120.117702) ([/prl/abstract/10.1103/PhysRevLett.120.117702](https://prl/abstract/10.1103/PhysRevLett.120.117702))

Theoretical predictions suggest a quantum battery could be implemented in either nanofabricated semiconductor quantum dots in a photonic cavity or superconducting qubits.

Dario Ferraro *et al.*

[Phys. Rev. Lett. \*\*120\*\*, 117702 \(2018\)](https://prl/abstract/10.1103/PhysRevLett.120.117702) ([/prl/abstract/10.1103/PhysRevLett.120.117702](https://prl/abstract/10.1103/PhysRevLett.120.117702))

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Physics (<https://physics.aps.org/>) NEWS AND COMMENTARY

[Two-Face Dipole](https://physics.aps.org/synopsis-for/10.1103/PhysRevLett.120.117402) (<https://physics.aps.org/synopsis-for/10.1103/PhysRevLett.120.117402>)

March 15, 2018

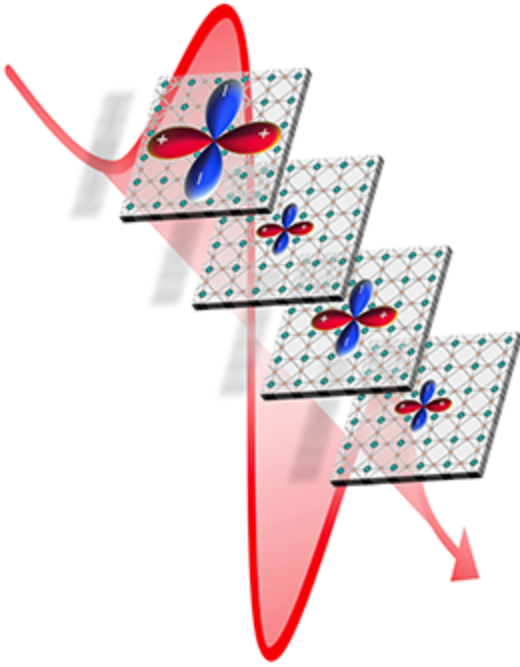
A proposed dipole source of electromagnetic waves can selectively couple its emission into either of two neighboring waveguides.

Synopsis on:

Michela F. Picardi, Anatoly V. Zayats, and Francisco J. Rodríguez-Fortuño

[Phys. Rev. Lett. \*\*120\*\*, 117402 \(2018\)](https://prl/abstract/10.1103/PhysRevLett.120.117402) ([/prl/abstract/10.1103/PhysRevLett.120.117402](https://prl/abstract/10.1103/PhysRevLett.120.117402))

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**EDITORS' SUGGESTION**

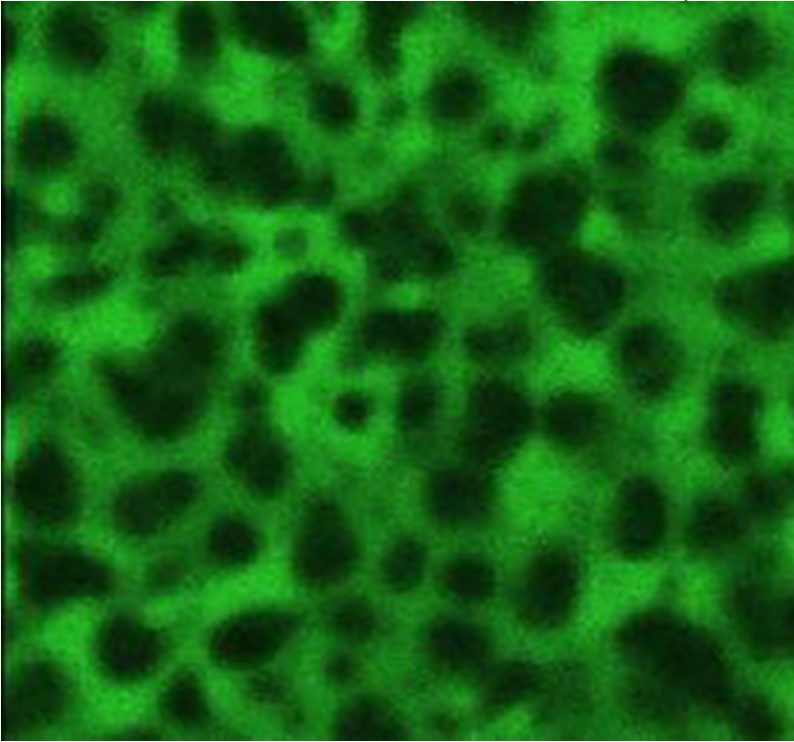
Higgs Mode in the *d*-Wave Superconductor  $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$  Driven by an Intense Terahertz Pulse ([/prl/abstract/10.1103/PhysRevLett.120.117001](https://prl/abstract/10.1103/PhysRevLett.120.117001))

Terahertz-pulse excitation experiments provide evidence for a Higgs mode in a d-wave-type, high-temperature cuprate superconductor.

Kota Katsumi *et al.*

Phys. Rev. Lett. **120**, 117001 (2018) ([/prl/abstract/10.1103/PhysRevLett.120.117001](https://prl/abstract/10.1103/PhysRevLett.120.117001))

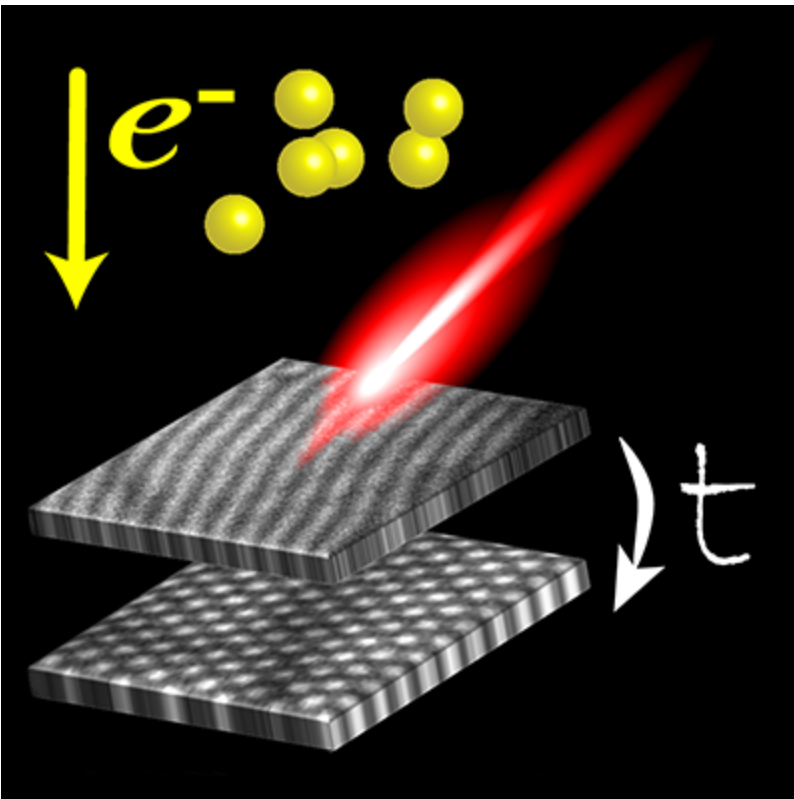
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**EDITORS' SUGGESTION**[Origin of Negative Capacitance in Bipolar Organic Diodes](#)  
([/prl/abstract/10.1103/PhysRevLett.120.116602](#))

Trap-assisted recombination is identified as the mechanism responsible for the negative contribution to the capacitance in bipolar organic diodes.

Quan Niu, N. Irina Crăciun, Gert-Jan A. H. Wetzelaer, and Paul W. M. Blom

[Phys. Rev. Lett. \*\*120\*\*, 116602 \(2018\)](#) ([/prl/abstract/10.1103/PhysRevLett.120.116602](#))





**EDITORS' SUGGESTION**

[Laser-Induced Skyrmion Writing and Erasing in an Ultrafast Cryo-Lorentz Transmission Electron Microscope \(/prl/abstract/10.1103/PhysRevLett.120.117201\)](/prl/abstract/10.1103/PhysRevLett.120.117201)

Experiments on the optical writing and erasing of magnetic skyrmions in FeGe indicate that more efficient skyrmion generation can be achieved in a cooled sample.

G. Berruto *et al.*

[Phys. Rev. Lett. \*\*120\*\*, 117201 \(2018\) \(/prl/abstract/10.1103/PhysRevLett.120.117201\)](/prl/abstract/10.1103/PhysRevLett.120.117201)

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**EDITORIAL**

[The Making of PRL: Mission, Material, Method \(/prl/edannounce/10.1103/PhysRevLett.120.060001\)](/prl/edannounce/10.1103/PhysRevLett.120.060001)

February 8, 2018

*Physical Review Letters*' Lead Editor, Hugues Chaté, and Managing Editor, Reinhardt Schuhmann, look back at how PRL has evolved and share their vision for the future.

Current Issue

Vol. 120, Iss. 12 — 23 March 2018

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Previous Issues

[Vol. 120, Iss. 11 — 16 March 2018 \(/prl/issues/120/11\)](/prl/issues/120/11)

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[Vol. 120, Iss. 9 — 2 March 2018 \(/prl/issues/120/9\)](/prl/issues/120/9)

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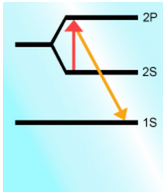
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# 125 YEARS



1947: Lamb shift is discovered (</125years/1947-lamb>)

[View timeline \(/125years\)](#) | [#PhysRev125](https://twitter.com/search?l=&q=%23PhysRev125%20from%3AAPSPHysics) (<https://twitter.com/search?l=&q=%23PhysRev125%20from%3AAPSPHysics>)

## Announcements

[Physics Physique \*физика\* Freely Available Online](https://journals.aps.org/ppf/) (<https://journals.aps.org/ppf/>)

March 22, 2018

As a service to the community, APS has made “Physics Physique *физика*” freely available online. This small journal published fewer than 100 articles between 1964-1968 and includes papers by many notable physicists, including J. S. Bell’s paper “On the Einstein Podolsky Rosen paradox.”

[The Work of Stephen Hawking in \*Physical Review\*](https://journals.aps.org/collections/stephen-hawking)  
(<https://journals.aps.org/collections/stephen-hawking>)

March 14, 2018

To mark the passing of Stephen Hawking, we gathered together and made free to read his 55 papers in *Physical Review D* and *Physical Review Letters*. They probe the edges of space and time, from “Black holes and thermodynamics” to a “Wave function of the Universe.” [APS News Article](https://www.aps.org/publications/apsnews/updates/hawking.cfm)  
(<https://www.aps.org/publications/apsnews/updates/hawking.cfm>).

[APS Announces Outstanding Referees for 2018](/edannounce/aps-announces-outstanding-referees-for-2018) (</edannounce/aps-announces-outstanding-referees-for-2018>)

February 26, 2018

APS has selected 147 Outstanding Referees for 2018 that have demonstrated exceptional work in the assessment of manuscripts submitted to the *Physical Review* journals. A full list of the Outstanding Referees is available [online](https://journals.aps.org/OutstandingReferees) (<https://journals.aps.org/OutstandingReferees>).

[Information on SCOAP<sup>3</sup> and \*Physical Review\* journals](https://journals.aps.org/authors/scoap3)  
(<https://journals.aps.org/authors/scoap3>)

January 3, 2018

High Energy Physics (HEP) papers published after January 1, 2018 in *Physical Review Letters*, *Physical Review C*, and *Physical Review D* are published open access, paid for centrally by SCOAP<sup>3</sup>. Library subscriptions will be modified accordingly. This arrangement will initially last for two years, up to the end of 2019.

Corrections in *Physical Review* publications  
([/prl/edannounce/10.1103/PhysRevLett.120.010002](https://prl.edannounce/10.1103/PhysRevLett.120.010002))

January 3, 2018

The *Physical Review* journals and *Reviews of Modern Physics* now make *Corrections* of minor errors in published papers.

*Physical Review* Symposium at Metamaterials 2018 in Espoo, Finland  
([/edannounce/physical-reviewi-symposium-at-metamaterials-2018-in-espoo-finland](https://edannounce/physical-reviewi-symposium-at-metamaterials-2018-in-espoo-finland))

December 15, 2017

Together with the conference organizers, the editors of the *Physical Review Journals* are pleased to announce a special symposium of invited talks at Metamaterials 2018 (<http://congress2018.metamorphose-vi.org/>), highlighting some of the latest works within and beyond the traditional domain of metamaterials research.

More Announcements ([/prl/edannounce](https://prl.edannounce))

### Meet The Editors

Washington University in St Louis (<https://wustl.edu/>)

March 28

St Louis, MO

Sami Mitra

Virginia Tech (<https://vt.edu/>)

March 30

Blacksburg, VA

Sami Mitra

University of California, Irvine (<https://www.physics.uci.edu/seminars/Department-Colloquium>)

April 12

Irvine, CA

Sami Mitra

University of Massachusetts Amherst (<https://www.physics.umass.edu/events/2018-04-18-tba>)

April 18

Amherst, MA

Sami Mitra

INTERMAG 2018 (<http://www.intermag2018.com/>)

April 23-27

Singapore

Daniel Ucko

Featured in *Physics*

[Q&A: Better Pixels for TVs and More Women in Physics \(https://physics.aps.org/articles/v11/24\)](https://physics.aps.org/articles/v11/24)

LED researcher Jess Wade devotes her time outside the lab to educating young women about the joys of a physics career.

[Q&A: A Condensed Matter Theorist Embraces AI \(https://physics.aps.org/articles/v11/15\)](https://physics.aps.org/articles/v11/15)

Juan Carrasquilla gave himself a crash course on machine learning and found a new way of approaching condensed-matter theory.

[Meetings: Interplanetary GPS \(https://physics.aps.org/articles/v11/11\)](https://physics.aps.org/articles/v11/11)

A system onboard the International Space Station found its location in the cosmos by detecting periodic x-ray signals from neutron stars—a technique that could eventually work for distant space probes.

[More \*Physics\* Features \(https://physics.aps.org/browse/?](https://physics.aps.org/browse/?page=1&date=&sort=recent&per_page=10&start_date=&end_date=&q=&article_type=feature#title)

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Trending in PRL

[Gravitational Radiation from Colliding Black Holes](https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.26.1344)

[\(https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.26.1344\)](https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.26.1344)

S. W. Hawking

[Phys. Rev. Lett. \*\*26\*\*, 1344 \(1971\) \(https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.26.1344\)](https://journals.aps.org/prl/abstract/10.1103/PhysRevLett.26.1344)

[Log-Normal Turbulence Dissipation in Global Ocean Models](https://link.aps.org/doi/10.1103/PhysRevLett.120.094501)

[\(https://link.aps.org/doi/10.1103/PhysRevLett.120.094501\)](https://link.aps.org/doi/10.1103/PhysRevLett.120.094501)

Brodie Pearson and Baylor Fox-Kemper

[Phys. Rev. Lett. \*\*120\*\*, 094501 \(2018\) \(https://link.aps.org/doi/10.1103/PhysRevLett.120.094501\)](https://link.aps.org/doi/10.1103/PhysRevLett.120.094501)

[Spin-Current-Controlled Modulation of the Magnon Spin Conductance in a Three-Terminal Magnon Transistor](https://link.aps.org/doi/10.1103/PhysRevLett.120.097702)

[\(https://link.aps.org/doi/10.1103/PhysRevLett.120.097702\)](https://link.aps.org/doi/10.1103/PhysRevLett.120.097702)

L. J. Cornelissen, J. Liu, B. J. van Wees, and R. A. Duine

[Phys. Rev. Lett. \*\*120\*\*, 097702 \(2018\) \(https://link.aps.org/doi/10.1103/PhysRevLett.120.097702\)](https://link.aps.org/doi/10.1103/PhysRevLett.120.097702)

[Magnon Valve Effect between Two Magnetic Insulators](https://link.aps.org/doi/10.1103/PhysRevLett.120.097205)

[\(https://link.aps.org/doi/10.1103/PhysRevLett.120.097205\)](https://link.aps.org/doi/10.1103/PhysRevLett.120.097205)

H. Wu *et al.*

[Phys. Rev. Lett. \*\*120\*\*, 097205 \(2018\) \(https://link.aps.org/doi/10.1103/PhysRevLett.120.097205\)](https://link.aps.org/doi/10.1103/PhysRevLett.120.097205)

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