



Twelve topological defects trapped together in a hole—a spot where the two-dimensional liquid crystal film is thinner. Selected for an Editors' Suggestion. [R. Stannarius and K. Harth, Phys. Rev. Lett. **117**, 157801 (2016)]

NEWSPAPER

PHYSICAL REVIEW LETTERS

Contents

Articles published 1 October–7 October 2016

VOLUME 117, NUMBER 15

7 October 2016

General Physics: Statistical and Quantum Mechanics, Quantum Information, etc.

Quantum Correlations Are Stronger Than All Nonsignaling Correlations Produced by n -Outcome Measurements	150401
Matthias Kleinmann and Adán Cabello	
Adiabatic Quantum Search in Open Systems	150501
Dominik S. Wild, Sarang Gopalakrishnan, Michael Knap, Norman Y. Yao, and Mikhail D. Lukin	
Quantum Change Point	150502
Gael Sentís, Emilio Bagan, John Calsamiglia, Giulio Chiribella, and Ramon Muñoz-Tapia	
Doubly Magic Optical Trapping for Cs Atom Hyperfine Clock Transitions	150801
A. W. Carr and M. Saffman	

Gravitation and Astrophysics

Localized $\text{AdS}_5 \times \text{S}^5$ Black Holes	151101
Óscar J. C. Dias, Jorge E. Santos, and Benson Way	
☞ Demonstration of Cosmic Microwave Background Delensing Using the Cosmic Infrared Background	151102
Patricia Larsen, Anthony Challinor, Blake D. Sherwin, and Daisy Mak	
Deciphering the Dipole Anisotropy of Galactic Cosmic Rays	151103
Markus Ahlers	
☞ Warm Little Inflaton	151301
Mar Bastero-Gil, Arjun Berera, Rudnei O. Ramos, and João G. Rosa	
H.E.S.S. Limits on Linelike Dark Matter Signatures in the 100 GeV to 2 TeV Energy Range Close to the Galactic Center	151302
H. Abdalla <i>et al.</i> (H.E.S.S. Collaboration)	

Elementary Particles and Fields

☞ Limits on Active to Sterile Neutrino Oscillations from Disappearance Searches in the MINOS, Daya Bay, and Bugey-3 Experiments	151801
P. Adamson <i>et al.</i> (Daya Bay and MINOS Collaborations)	
Improved Search for a Light Sterile Neutrino with the Full Configuration of the Daya Bay Experiment	151802
F. P. An <i>et al.</i> (Daya Bay Collaboration)	
Search for Sterile Neutrinos Mixing with Muon Neutrinos in MINOS	151803
P. Adamson <i>et al.</i> (MINOS Collaboration)	
Scheme Variations of the QCD Coupling and Hadronic τ Decays	152001
Diogo Boito, Matthias Jamin, and Ramon Miravittllas	
Charge Redistribution from Anomalous Magnetovorticity Coupling	152002
Koichi Hattori and Yi Yin	
☞ Search for Structure in the $B_s^0 \pi^\pm$ Invariant Mass Spectrum	152003
R. Aaij <i>et al.</i> (LHCb Collaboration)	

(Continued Inside)

☞ Selected for a Viewpoint in *Physics*. Please visit <http://physics.aps.org/>.

By suggesting a few manuscripts each week, we hope to promote reading across fields. Please see our Announcement Phys. Rev. Lett. 98, 010001 (2007).

Copyright 2016 American Physical Society



Three-Jet Production in Electron-Positron Collisions at Next-to-Next-to-Leading Order Accuracy	152004
Vittorio Del Duca, Claude Duhr, Adam Kardos, Gábor Somogyi, and Zoltán Trócsányi	
Nuclear Physics	
 $^7\text{Be}(n, \alpha)^4\text{He}$ Reaction and the Cosmological Lithium Problem: Measurement of the Cross Section in a Wide Energy Range at n_TOF at CERN	152701
M. Barbagallo <i>et al.</i> (n_TOF Collaboration)	
Atomic, Molecular, and Optical Physics	
Enhanced Constraints for Accurate Lower Bounds on Many-Electron Quantum Energies from Variational Two-Electron Reduced Density Matrix Theory	153001
David A. Mazziotti	
 Diffractive Imaging of Coherent Nuclear Motion in Isolated Molecules	153002
 Jie Yang, Markus Guehr, Xiaozhe Shen, Renkai Li, Theodore Vecchione, Ryan Coffee, Jeff Corbett, Alan Fry, Nick Hartmann, Carsten Hast, Kareem Hegazy, Keith Jobe, Igor Makasyuk, Joseph Robinson, Matthew S. Robinson, Sharon Vetter, Stephen Weathersby, Charles Yoneda, Xijie Wang, and Martin Centurion	
 Self-Referenced Coherent Diffraction X-Ray Movie of Ångstrom- and Femtosecond-Scale Atomic Motion	153003
 J. M. Glowina, A. Natan, J. P. Cryan, R. Hartsock, M. Kozina, M. P. Minitti, S. Nelson, J. Robinson, T. Sato, T. van Driel, G. Welch, C. Weninger, D. Zhu, and P. H. Bucksbaum	
Atomic Resolution Imaging at an Ultralow Accelerating Voltage by a Monochromatic Transmission Electron Microscope	153004
Shigeyuki Morishita, Masaki Mukai, Kazu Suenaga, and Hidetaka Sawada	
Heteronuclear Efimov Scenario with Positive Intraspecies Scattering Length	153201
Juris Ulmanis, Stephan Häfner, Rico Pires, Eva D. Kuhnle, Yujun Wang, Chris H. Greene, and Matthias Weidemüller	
 Recombination-Enhanced Surface Expansion of Clusters in Intense Soft X-Ray Laser Pulses	153401
Daniela Rupp, Leonie Flückiger, Marcus Adolph, Tais Gorkhover, Maria Krikunova, Jan Philippe Müller, Maria Müller, Tim Oelze, Yevheniy Ovcharenko, Benjamin Röben, Mario Sauppe, Sebastian Schorb, David Wolter, Rolf Mitzner, Michael Wöstmann, Sebastian Roling, Marion Harmand, Rolf Treusch, Mathias Arbeiter, Thomas Fennel, Christoph Bostedt, and Thomas Möller	
Multiple Rabi Splittings under Ultrastrong Vibrational Coupling	153601
Jino George, Thibault Chervy, Atef Shalabney, Eloïse Devaux, Hidefumi Hiura, Cyriaque Genet, and Thomas W. Ebbesen	
Nonlinear Dynamics, Fluid Dynamics, Classical Optics, etc.	
Coherence Constraints and the Last Hidden Optical Coherence	153901
Xiao-Feng Qian, Tanya Malhotra, A. Nick Vamivakas, and Joseph H. Eberly	
Suppression of Noise-Induced Modulations in Multidelay Systems	154101
Lina Jaurigue, Eckehard Schöll, and Kathy Lüdge	
Preferential Rotation of Chiral Dipoles in Isotropic Turbulence	154501
Stefan Kramel, Greg A. Voth, Saskia Tympel, and Federico Toschi	
Ligament Mediated Fragmentation of Viscoelastic Liquids	154502
Bavand Keshavarz, Eric C. Houze, John R. Moore, Michael R. Koerner, and Gareth H. McKinley	
Plasma and Beam Physics	
Nondestructive Measurement of Orbital Angular Momentum for an Electron Beam	154801
Hugo Larocque, Frédéric Bouchard, Vincenzo Grillo, Alicia Sit, Stefano Frabboni, Rafal E. Dunin-Borkowski, Miles J. Padgett, Robert W. Boyd, and Ebrahim Karimi	
First Test of Long-Range Collisional Drag via Plasma Wave Damping	155001
M. Affolter, F. Anderegg, D. H. E. Dubin, and C. F. Driscoll	
Condensed Matter: Structure, etc.	
Anisotropic Expansion of a Thermal Dipolar Bose Gas	155301
Y. Tang, A. G. Sykes, N. Q. Burdick, J. M. DiSciaccia, D. S. Petrov, and B. L. Lev	

(Continued on Preceding Page)



Selected for a Viewpoint in *Physics*. Please visit <http://physics.aps.org/>.

By suggesting a few manuscripts each week, we hope to promote reading across fields. Please see our Announcement Phys. Rev. Lett. 98, 010001 (2007)

Relaxor Ferroelectrics: Back to the Single-Soft-Mode Picture	155501
B. Hehlen, M. Al-Sabbagh, A. Al-Zein, and J. Hlinka	
Controlling Strain Bursts and Avalanches at the Nano- to Micrometer Scale	155502
Yinan Cui, Giacomo Po, and Nasr Ghoniem	
Phase-Field-Crystal Model for Electromigration in Metal Interconnects	155901
Nan Wang, Kirk H. Bevan, and Nikolas Provatas	
Proton Conductivity in Phosphoric Acid: The Role of Quantum Effects	156001
M. Heres, Y. Wang, P.J. Griffin, C. Gainaru, and A. P. Sokolov	
Condensed Matter: Electronic Properties, etc.	
Laser-Induced Charge-Density-Wave Transient Depinning in Chromium	156401
V. L. R. Jacques, C. Laulhé, N. Moisan, S. Ravy, and D. Le Bolloc'h	
Uncoupled Dark States Can Inherit Polaritonic Properties	156402
Carlos Gonzalez-Ballester, Johannes Feist, Eduardo Gonzalo Badía, Esteban Moreno, and Francisco J. Garcia-Vidal	
<i>Ab Initio</i> Quantum Monte Carlo Simulation of the Warm Dense Electron Gas in the Thermodynamic Limit	156403
Tobias Dornheim, Simon Groth, Travis Sjostrom, Fionn D. Malone, W. M. C. Foulkes, and Michael Bonitz	
Nonergodic Phases in Strongly Disordered Random Regular Graphs	156601
B. L. Altshuler, E. Cuevas, L. B. Ioffe, and V. E. Kravtsov	
Superconductivity near a Quantum-Critical Point: The Special Role of the First Matsubara Frequency	157001
Yuxuan Wang, Artem Abanov, Boris L. Altshuler, Emil A. Yuzbashyan, and Andrey V. Chubukov	
Nematic Quantum Critical Fluctuations in $\text{BaFe}_{2-x}\text{Ni}_x\text{As}_2$	157002
Zhaoyu Liu, Yanhong Gu, Wei Zhang, Dongliang Gong, Wenliang Zhang, Tao Xie, Xingye Lu, Xiaoyan Ma, Xiaotian Zhang, Rui Zhang, Jun Zhu, Cong Ren, Lei Shan, Xianggang Qiu, Pengcheng Dai, Yi-feng Yang, Huiqian Luo, and Shiliang Li	
Highly Anisotropic and Twofold Symmetric Superconducting Gap in Nematically Ordered $\text{FeSe}_{0.93}\text{S}_{0.07}$	157003
H. C. Xu, X. H. Niu, D. F. Xu, J. Jiang, Q. Yao, Q. Y. Chen, Q. Song, M. Abdel-Hafiez, D. A. Chareev, A. N. Vasiliev, Q. S. Wang, H. L. Wo, J. Zhao, R. Peng, and D. L. Feng	
Thermodynamic Measurement of Angular Anisotropy at the Hidden Order Transition of URu_2Si_2	157201
Jennifer Trinh, Ekkes Brück, Theo Siegrist, Rebecca Flint, Premala Chandra, Piers Coleman, and Arthur P. Ramirez	
Anisotropic Polar Magneto-Optic Kerr Effect of Ultrathin Fe/GaAs(001) Layers due to Interfacial Spin-Orbit Interaction	157202
M. Buchner, P. Högl, S. Putz, M. Gmitra, S. Günther, M. A. W. Schoen, M. Kronseder, D. Schuh, D. Bougeard, J. Fabian, and C. H. Back	
Fractional Spin Fluctuations as a Precursor of Quantum Spin Liquids: Majorana Dynamical Mean-Field Study for the Kitaev Model	157203
Junki Yoshitake, Joji Nasu, and Yukitoshi Motome	
Tunable Magnon Weyl Points in Ferromagnetic Pyrochlores	157204
Alexander Mook, Jürgen Henk, and Ingrid Mertig	
Skyrmions with Attractive Interactions in an Ultrathin Magnetic Film	157205
Levente Rózsa, András Deák, Eszter Simon, Rocio Yanes, László Udvardi, László Szunyogh, and Ulrich Nowak	
Manipulating Smith-Purcell Emission with Babinet Metasurfaces	157401
Zuojia Wang, Kan Yao, Min Chen, Hongsheng Chen, and Yongmin Liu	
 Coherent Control of the Exciton-Biexciton System in an InAs Self-Assembled Quantum Dot Ensemble	157402
Takeshi Suzuki, Rohan Singh, Manfred Bayer, Arne Ludwig, Andreas D. Wieck, and Steven T. Cundiff	
Polymer, Soft Matter, Biological, Climate, and Interdisciplinary Physics	
 Defect Interactions in Anisotropic Two-Dimensional Fluids	157801
R. Stannarius and K. Harth	
Anisotropic X-Ray Dark-Field Tomography: A Continuous Model and its Discretization	158101
M. Wiczorek, F. Schaff, F. Pfeiffer, and T. Lasser	

(Continued on Preceding Page)



Selected for a Viewpoint in *Physics*. Please visit <http://physics.aps.org/>.

By suggesting a few manuscripts each week, we hope to promote reading across fields. Please see our Announcement Phys. Rev. Lett. 98, 010001 (2007)

Comments

Comment on “Estimating Excitonic Effects in the Absorption Spectra of Solids: Problems and Insight from a Guided Iteration Scheme”	159701
S. Sharma, J. K. Dewhurst, A. Sanna, and E. K. U. Gross	
Rigamonti <i>et al.</i> Reply	159702
Santiago Rigamonti, Silvana Botti, Valérie Veniard, Claudia Draxl, Lucia Reining, and Francesco Sottile	
Comment on “What Determines the Static Force Chains in Stressed Granular Media?”	159801
E. DeGiuli and J. N. McElwaine	
Gendelman <i>et al.</i> Reply	159802
Oleg Gendelman, Yoav G. Pollack, Itamar Procaccia, Shiladitya Sengupta, and Jacques Zylberg	

Errata

Erratum: Axion Dark Matter Coupling to Resonant Photons via Magnetic Field [Phys. Rev. Lett. 116 , 161804 (2016)]	159901
Ben T. McAllister, Stephen R. Parker, and Michael E. Tobar	
Erratum: First Measurements of Fuel-Ablator Interface Instability Growth in Inertial Confinement Fusion Implosions on the National Ignition Facility [Phys. Rev. Lett. 117 , 075002 (2016)]	159902
C. R. Weber, T. Döppner, D. T. Casey, T. L. Bunn, L. C. Carlson, R. J. Dylla-Spears, B. J. Kozioziemski, A. G. MacPhee, A. Nikroo, H. F. Robey, J. D. Sater, and V. A. Smalyuk	



Selected for a Viewpoint in *Physics*. Please visit <http://physics.aps.org/>.

By suggesting a few manuscripts each week, we hope to promote reading across fields. Please see our Announcement Phys. Rev. Lett. 98, 010001 (2007).

Physics
spotlighting exceptional research

The American Physical Society’s free online publication, *Physics* (<http://physics.aps.org/>), provides thought-provoking analysis and spotlights exceptional research.