



Frequency as a function of wave number for a simulation of fast Alfvén waves in a magnetically confined fusion plasma. [J.W.S. Cook, R.O. Dendy and S.C. Chapman, **118**, 185001 (2017)]

NEWSPAPER

PHYSICAL REVIEW LETTERS

Contents

Articles published 29 April–5 May 2017

VOLUME 118, NUMBER 18

5 May 2017

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

- ☞ Matter-Wave Tractor Beams 180401
Alexey A. Gorlach, Maxim A. Gorlach, Andrei V. Lavrinenko, and Andrey Novitsky
- Experimental Demonstration of Uncertainty Relations for the Triple Components of Angular Momentum 180402
Wenchao Ma, Bin Chen, Ying Liu, Mengqi Wang, Xiangyu Ye,
Fei Kong, Fazhan Shi, Shao-Ming Fei, and Jiangfeng Du
- ☞ Experimental Determination of Dynamical Lee-Yang Zeros 180601
Kay Brandner, Ville F. Maisi, Jukka P. Pekola, Juan P. Garrahan, and Christian Flindt

Gravitation and Astrophysics

- ☞ Violating the Weak Cosmic Censorship Conjecture in Four-Dimensional Anti-de Sitter Space 181101
Toby Crisford and Jorge E. Santos
- Constraints on the Dynamical Environments of Supermassive Black-Hole Binaries Using Pulsar-Timing Arrays 181102
Stephen R. Taylor, Joseph Simon, and Laura Sampson
- Detecting Gravitational Wave Memory without Parent Signals 181103
Lucy O. McNeill, Eric Thrane, and Paul D. Lasky
- New Probe of Departures from General Relativity Using Minkowski Functionals 181301
Wenjuan Fang, Baojiu Li, and Gong-Bo Zhao

Elementary Particles and Fields

- Chiral Shock Waves 181601
Srimoyee Sen and Naoki Yamamoto
- Gravity Amplitudes as Generalized Double Copies of Gauge-Theory Amplitudes 181602
Zvi Bern, John Joseph Carrasco, Wei-Ming Chen, Henrik Johansson, and Radu Roiban
- ☞ Observation of Five New Narrow Ω_c^0 States Decaying to $\Xi_c^+ K^-$ 182001
R. Aaij *et al.* (LHCb Collaboration)

Nuclear Physics

- van der Waals Interactions in Hadron Resonance Gas: From Nuclear Matter to Lattice QCD 182301
Volodymyr Vovchenko, Mark I. Gorenstein, and Horst Stoecker

Atomic, Molecular, and Optical Physics

- Electron-Nuclear Coupling through Autoionizing States after Strong-Field Excitation of H_2 Molecules 183201
Yonghao Mi, Nicolas Camus, Lutz Fechner, Martin Laux, Robert Moshhammer, and Thomas Pfeifer
- Cavity Cooling of Many Atoms 183601
Mahdi Hosseini, Yiheng Duan, Kristin M. Beck, Yu-Ting Chen, and Vladan Vuletić
- ☞ Phase Shift in an Atom Interferometer due to Spacetime Curvature across its Wave Function 183602
Peter Asenbaum, Chris Overstreet, Tim Kovachy, Daniel D. Brown,
Jason M. Hogan, and Mark A. Kasevich

(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 2017 American Physical Society



0031-9007(20170505)118:18;1-Q

Generation of Counterpropagating Path-Entangled Photon Pairs in a Single Periodic Waveguide	183603
Sina Saravi, Thomas Pertsch, and Frank Setzpfandt	
Nonlinear Dynamics, Fluid Dynamics, Classical Optics, etc.	
Holography of Wi-fi Radiation	183901
Philipp M. Holl and Friedemann Reinhard	
Return to the Origin as a Probe of Atomic Phase Coherence	184101
Clément Hainaut, Isam Manai, Radu Chicireanu, Jean-François Clément, Samir Zemmouri, Jean Claude Garreau, Pascal Szriftgiser, Gabriel Lemarié, Nicolas Cherroret, and Dominique Delande	
Plasma and Beam Physics	
Stimulated Emission of Fast Alfvén Waves within Magnetically Confined Fusion Plasmas	185001
J. W. S. Cook, R. O. Dendy, and S. C. Chapman	
Observation of Oscillatory Radial Electric Field Relaxation in a Helical Plasma	185002
J. A. Alonso, E. Sánchez, I. Calvo, J. L. Velasco, K. J. McCarthy, A. Chmyga, L. G. Eliseev, T. Estrada, R. Kleiber, L. I. Krupnik, A. V. Melnikov, P. Monreal, F. I. Parra, S. Perfilov, and the TJ-II Team	
☞ Transition from Collisional to Collisionless Regimes in Interpenetrating Plasma Flows on the National Ignition Facility	185003
J. S. Ross, D. P. Higginson, D. Ryutov, F. Fiuza, R. Hatarik, C. M. Huntington, D. H. Kalantar, A. Link, B. B. Pollock, B. A. Remington, H. G. Rinderknecht, G. F. Swadling, D. P. Turnbull, S. Weber, S. Wilks, D. H. Froula, M. J. Rosenberg, T. Morita, Y. Sakawa, H. Takabe, R. P. Drake, C. Kuran, G. Gregori, J. Meinecke, M. C. Levy, M. Koenig, A. Spitkovsky, R. D. Petrasso, C. K. Li, H. Sio, B. Lahmann, A. B. Zylstra, and H.-S. Park	
Condensed Matter: Structure, etc.	
Scheme to Measure the Topological Number of a Chern Insulator from Quench Dynamics	185701
Ce Wang, Pengfei Zhang, Xin Chen, Jinlong Yu, and Hui Zhai	
Facile Anhydrous Proton Transport on Hydroxyl Functionalized Graphane	186101
Abhishek Bagusetty, Pabitra Choudhury, Wissam A. Saidi, Bridget Derksen, Elizabeth Gatto, and J. Karl Johnson	
Condensed Matter: Electronic Properties, etc.	
Filling-Enforced Magnetic Dirac Semimetals in Two Dimensions	186401
Steve M. Young and Benjamin J. Wieder	
☞ Quantum Hall Spin Diode	186801
J. P. Eisenstein, L. N. Pfeiffer, and K. W. West	
☞ Strong Modulation of Spin Currents in Bilayer Graphene by Static and Fluctuating Proximity Exchange Fields	187201
Simranjeet Singh, Jyoti Katoch, Tiancong Zhu, Keng-Yuan Meng, Tianyu Liu, Jack T. Brangham, Fengyuan Yang, Michael E. Flatté, and Roland K. Kawakami	
New Easy-Plane $\mathbb{CP}^{N-1}$ Fixed Points	187202
Jonathan D'Emidio and Ribhu K. Kaul	
Anomalous Thermal Conductivity and Magnetic Torque Response in the Honeycomb Magnet α -RuCl ₃	187203
Ian A. Leahy, Christopher A. Pocs, Peter E. Siegfried, David Graf, S.-H. Do, Kwang-Yong Choi, B. Normand, and Minhyea Lee	
Polymer, Soft Matter, Biological, Climate, and Interdisciplinary Physics	
Linking Particle Dynamics to Local Connectivity in Colloidal Gels	188001
Jan Maarten van Doorn, Jochem Bronkhorst, Ruben Higler, Ties van de Laar, and Joris Sprakel	



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.