PHYSICAL REVIEW LETTERS

Contents

VOLUME 78, NUMBER 15 14 April 1997

CODEN: PRLTAO 78 (15), 2869–3029 (14 April 1997)

General Physics

Direct Construction of Conservation Laws from Field Equations 2869
Stephen C. Anco and George Bluman

Consistent Sets Yield Contrary Inferences in Quantum Theory 2874
Adrian Kent

Quantum Dissipation versus Classical Dissipation for Generalized Brownian Motion 2878
Doron Cohen

Stochastic Multiresonance 2882
J. M. G. Vilar and J. M. Rubí

Spatiotemporal Stochastic Resonance in the Swift-Hohenberg Equation 2886
J. M. G. Vilar and J. M. Rubí

Spontaneous Symmetry Breaking in Directed Percolation with Many Colors: Differentiation of Species in the Gribov Process 2890
H. K. Janssen

Gravitation and Astrophysics

Quasinormal Modes of Dirty Black Holes 2894
P. T. Leung, Y. T. Liu, W.-M. Suen, C. Y. Tam, and K. Young

Dense Nuclear Matter in a Strong Magnetic Field 2898
Somenath Chakrabarty, Debades Bandyopadhyay, and Subrata Pal

Elementary Particles and Fields

Hard m_t Corrections as a Probe of the Symmetry Breaking Sector 2902
J. Bernabéu, D. Comelli, A. Pich, and A. Santamaria

Search for Third Generation Leptoquarks in $\bar{p}p$ Collisions at $\sqrt{s} = 1.8$ TeV 2906
F. Abe *et al.* (CDF Collaboration)

High Statistics Search for $\nu_\mu(\overline{\nu}_\mu) \rightarrow \nu_e(\overline{\nu}_e)$ Oscillations in the Small Mixing Angle Regime 2912
A. Romosan, C. G. Arroyo, L. de Barbaro, P. de Barbaro, A. O. Bazarko, R. H. Bernstein, A. Bodek, T. Bolton, H. Budd, J. Conrad, R. B. Drucker, D. A. Harris, R. A. Johnson, J. H. Kim, B. J. King, T. Kinnel, M. J. Lamm, W. C. Lefmann, W. Marsh, K. S. McFarland, C. McNulty, S. R. Mishra, D. Naples, P. Z. Quintas, W. K. Sakumoto, H. Schellman, F. J. Sciulli, W. G. Seligman, M. H. Shaevitz, W. H. Smith, P. Spentzouris, E. G. Stern, M. Vakili, U. K. Yang, and J. Yu

Nuclear Physics

Two-Pion Correlations in Au + Au Collisions at 10.8 GeV/c per Nucleon 2916
J. Barrette *et al.* (E877 Collaboration)

Observation of Octupole Structures in Radon and Radium Isotopes and Their Contrasting Behavior at High Spin 2920
J. F. C. Cocks, P. A. Butler, K. J. Cann, P. T. Greenlees, G. D. Jones, S. Asztalos, P. Bhattacharyya, R. Broda, R. M. Clark, M. A. Deleplanque, R. M. Diamond, P. Fallon, B. Fornal, P. M. Jones, R. Julin, T. Lauritsen, I. Y. Lee, A. O. Macchiavelli, R. W. MacLeod, J. F. Smith, F. S. Stephens, and C. T. Zhang

Complete Spectroscopy of an Isobaric Analog Resonance with the $(e, e'p)$ Reaction 2924
P. von Neumann-Cosel, C. Rangacharyulu, A. Richter, G. Schrieder, A. Stascheck, and S. Strauch

(Continued on Third Cover)

Contents (Continued)

Atomic, Molecular, and Optical Physics

Compression and Parametric Driving of Atoms in Optical Lattices 2928
G. Raithel, G. Birkl, W. D. Phillips, and S. L. Rolston

Exploring a Metal-Insulator Transition with Ultracold Atoms in Standing Light Waves? 2932
Klaus Drese and Martin Holthaus

Nonlinear Dynamics, Fluid Dynamics, Classical Optics, Etc.

Conditions to Control Chaotic Dynamics by Weak Periodic Perturbation 2936
Rue-Ron Hsu, Han-Tzong Su, Jyh-Long Chern, and Chia-Chu Chen

Experimental Identification of Non-Newtonian Orbits Produced by Ray Splitting in a Dielectric-Loaded Microwave Cavity 2940
L. Sirko, P. M. Koch, and R. Blümel

Nonvolatile Holographic Storage with Two-Step Recording in Lithium Niobate using cw Lasers 2944
Y. S. Bai and R. Kachru

Self-Trapping of an Optical Vortex by Use of the Bulk Photovoltaic Effect 2948
Zhigang Chen, Mordechai Segev, Daniel W. Wilson, Richard E. Muller, and Paul D. Maker

Angular Dependences of Third Harmonic Generation from Microdroplets 2952
J. Kasparian, B. Krämer, J. P. Dewitz, S. Vajda, P. Rairoux, B. Vezin, V. Boutou, T. Leisner, W. Hübner, J. P. Wolf, L. Wöste, and K. H. Bennemann

Electrically Stimulated Light-Induced Second-Harmonic Generation in Glass: Evidence of Coherent Photoconductivity 2956
P. G. Kazansky and V. Pruneri

Enhancement of Multiplexed Holograms in Cerium-Doped $Sr_{0.75}Ba_{0.25}Nb_2O_6$ 2960
Jian Ma, Tallis Y. Chang, John H. Hong, and Ratnakar R. Neurgaonkar

Inertial- and Dissipation-Range Asymptotics in Fluid Turbulence 2964
Sujan K. Dhar, Anirban Sain, and Rahul Pandit

Plasma and Beam Physics

Microfilamentation in Optical-Field-Induced Ionization Process 2968
V. B. Gil'denburg, A. G. Litvak, and N. A. Zharova

Roles of Electric Field Shear and Shafranov Shift in Sustaining High Confinement in Enhanced Reversed Shear Plasmas on the TFTR Tokamak 2972
E. J. Synakowski, S. H. Batha, M. A. Beer, M. G. Bell, R. E. Bell, R. V. Budny, C. E. Bush, P. C. Efthimion, G. W. Hammett, T. S. Hahm, B. LeBlanc, F. Levinton, E. Mazzucato, H. Park, A. T. Ramsey, G. Rewoldt, S. D. Scott, G. Schmidt, W. M. Tang, G. Taylor, and M. C. Zarnstorff

Alpha-Particle-Driven Toroidal Alfvén Eigenmodes in the Tokamak Fusion Test Reactor 2976
R. Nazikian, G. Y. Fu, S. H. Batha, M. G. Bell, R. E. Bell, R. V. Budny, C. E. Bush, Z. Chang, Y. Chen, C. Z. Cheng, D. S. Darrow, P. C. Efthimion, E. D. Fredrickson, N. N. Gorelenkov, B. Leblanc, F. M. Levinton, R. Majeski, E. Mazzucato, S. S. Medley, H. K. Park, M. P. Petrov, D. A. Spong, J. D. Strachan, E. J. Synakowski, G. Taylor, S. Von Goeler, R. B. White, K. L. Wong, and S. J. Zweben

Condensed Matter: Structure, Etc.

Homogeneous Amorphization in High-Energy Ion Implanted Si 2980
T. Motooka, S. Harada, and M. Ishimaru

Growth Pathways of Metallocarbohedrenes: Cagelike or Cubic? 2983
Lai-Sheng Wang and Hansong Cheng

New Electrorheological Fluid: Theory and Experiment 2987
Wing Yim Tam, Guang Hua Yi, Weijia Wen, Hongru Ma, M. M. T. Loy, and Ping Sheng

Pressure Induced Water Insertion in the Defect Pyrochlore NH_4NbWO_6 2991
C. A. Perottoni and J. A. H. da Jornada

Fast Dynamics in CKN and CRN Investigated by Dielectric Spectroscopy 2995
P. Lunkenheimer, A. Pimenov, and A. Loidl

(Continued on Preceding Page)

Contents (Continued)

Electronic Tuning of Dynamical Charge Transfer at an Interface: K Doping of C_{60}/Ag(111) 2999
A. Peremans, Y. Caudano, P. A. Thiry, P. Dumas, W. Q. Zhang, A. Le Rille, and A. Tadjeddine
X-Ray Observation of a Chemical Order Driven Morphological Transition on the Surface of an A_3B Type Alloy 3003
L. Barbier, S. Goapper, B. Salanon, R. Caudron, A. Loiseau, J. Alvarez, S. Ferrer, and X. Torrelles
Reduction of Threading Dislocation Densities in Heavily Lattice Mismatched PbSe on Si(111) by Glide 3007
P. Müller, H. Zogg, A. Fach, J. John, C. Paglino, A. N. Tiwari, M. Krejci, and G. Kostorz

Condensed Matter: Electronic Properties, Etc.
Critical Velocities in Exciton Superfluidity 3011
I. Loutsenko and D. Roubtsov
Universality of Transport through Dirty Interfaces 3015
Kees M. Schep and Gerrit E. W. Bauer
Origin of the Quantum-Critical Transition in the Bilayer Heisenberg Model 3019
C. N. A. van Duin and J. Zaanen
Exponential Dependence of the Interlayer Exchange Coupling on the Spacer Thickness in MBE-grown Fe/SiFe/Fe Sandwiches 3023
J. J. de Vries, J. Kohlhepp, F. J. A. den Broeder, R. Coehoorn, R. Jungblut, A. Reinders, and W. J. M. de Jonge

Comments
Island Formation and Critical Thickness in Heteroepitaxy 3027
I. Daruka and A.-L. Barabási
Chen and Washburn Reply 3028
Y. Chen and J. Washburn

Errata
NMR Evidence for a *d*-Wave Normal-State Pseudogap [Phys. Rev. Lett. **78**, 721 (1997)] 3029
G. V. M. Williams, J. L. Tallon, E. M. Haines, R. Michalak, and R. Dupree