PHYSICAL REVIEW LETTERS

Contents

VOLUME 84, NUMBER 9 28 February 2000

PRL 84 (9), 1849–2045 (28 February 2000)

General Physics

Nonclassical States: An Observable Criterion 1849
Werner Vogel

Gravitation and Astrophysics

Stable Monopole and Dyon Solutions in the Einstein-Yang-Mills Theory in Asymptotically anti–de Sitter Space 1853
Jefferson Bjoraker and Yutaka Hosotani

Elementary Particles and Fields

Observation of the Cabibbo-Suppressed Decay $\Xi_c^+ \to pK^-\pi^+$ 1857
S. Y. Jun *et al.* (SELEX Collaboration)

Nuclear Physics

Nuclear and Coulomb Interaction in ^{8}B Breakup at Sub-Coulomb Energies 1862
V. Guimarães, J. J. Kolata, D. Peterson, P. Santi, R. H. White-Stevens, S. M. Vincent, F. D. Becchetti, M. Y. Lee, T. W. O'Donnell, D. A. Roberts, and J. A. Zimmerman

Partial Dynamical Symmetry in a Fermion System 1866
Jutta Escher and Amiram Leviatan

Atomic, Molecular, and Optical Physics

Quantum Energy Flow in Atomic Ions Moving in Magnetic Fields 1870
V. S. Melezhik and P. Schmelcher

Photoassociation Spectroscopy of Cold He(2^3S) Atoms 1874
N. Herschbach, P. J. J. Tol, W. Vassen, W. Hogervorst, G. Woestenenk, J. W. Thomsen, P. van der Straten, and A. Niehaus

Complete Numerical Solution of Electron-Hydrogen Model Collision Problem above the Ionization Threshold 1878
S. Jones and A. T. Stelbovics

Dynamical Casimir Effect at Finite Temperature 1882
Günter Plunien, Ralf Schützhold, and Gerhard Soff

Nonlinear Dynamics, Fluid Dynamics, Classical Optics, etc.

Correlations in the Adiabatic Response of Chaotic Systems 1886
Ophir M. Auslaender and Shmuel Fishman

Prediction of Spatiotemporal Time Series Based on Reconstructed Local States 1890
Ulrich Parlitz and Christian Merkwirth

Finite Flux Solutions of the Quantum Boltzmann Equation and Semiconductor Lasers 1894
Yuri V. Lvov and Alan C. Newell

Intrinsic Bistability of Luminescence and Stimulated Emission in Yb- and Tm-Doped Glass 1898
A. Kuditcher, M. P. Hehlen, C. M. Florea, K. W. Winick, and S. C. Rand

(Continued on Third Cover)

Copyright 2000 by The American Physical Society

Contents (Continued)

Cantor Set Fractals from Solitons 1902
Suzanne Sears, Marin Soljacic, Mordechai Segev, Dmitriy Krylov, and Keren Bergman
Spatiotemporally Localized Multidimensional Solitons in Self-Induced Transparency Media 1906
M. Blaauboer, B. A. Malomed, and G. Kurizki
Propagating Pattern Selection and Causality Reconsidered 1910
J.-M. Chomaz and A. Couairon

Plasma and Beam Physics

Astrophysical Jets as Exact Plasma Equilibria 1914
Oleg I. Bogoyavlenskij
Negative Ion Density Fronts during Ignition and Extinction of Plasmas in Electronegative Gases 1918
I. D. Kaganovich, D. J. Economou, B. N. Ramamurthi, and V. Midha
Impurity-Induced Suppression of Core Turbulence and Transport in the DIII-D Tokamak 1922
G. McKee, K. Burrell, R. Fonck, G. Jackson, M. Murakami, G. Staebler, D. Thomas, and P. West

Condensed Matter: Structure, etc.

Internal Atomic Distortion and Layer Roughness of Epitaxial SiC Thin Films Studied by Short Wavelength X-Ray Diffraction 1926
G. Xu and Z. C. Feng
Photoalignment of Liquid Crystals by Liquid Crystals 1930
Yuriy Reznikov, Oksana Ostroverkhova, Kenneth D. Singer, Jae-Hoon Kim, Satyendra Kumar, Oleg Lavrentovich, Bin Wang, and John L. West
Director Precession and Nonlinear Waves in Nematic Liquid Crystals under Elliptic Shear 1934
T. Börzsönyi, Á. Buka, A. P. Krekhov, O. A. Scaldin, and L. Kramer
Magnetic Field Dependent Tunneling in Glasses 1938
P. Strehlow, M. Wohlfahrt, A. G. M. Jansen, R. Haueisen, G. Weiss, C. Enss, and S. Hunklinger
Charged Local Defects in Extended Systems 1942
Peter A. Schultz
Scaling and Noise in Slow Combustion of Paper 1946
M. Myllys, J. Maunuksela, M. J. Alava, T. Ala-Nissila, and J. Timonen
Dynamic Scaling of Ultrasonic Damping near the Nematic-Smectic-*A* Transition of TBBA 1950
P. Sonntag, D. Collin, and P. Martinoty
Orientational Ordering of N_2O Molecules Adsorbed on Graphite (0001): A Novel Commensurate Pinwheel 1954
B. Leinböck, B. Krömker, H. Wiechert, and M. Hofmann
Strain Evolution in Coherent Ge/Si Islands 1958
Chuan-Pu Liu, J. Murray Gibson, David G. Cahill, Theodore I. Kamins, David P. Basile, and R. Stanley Williams
Polarizability of KC_{60}: Evidence for Potassium Skating on the C_{60} Surface 1962
D. Rayane, R. Antoine, Ph. Dugourd, E. Benichou, A. R. Allouche, M. Aubert-Frécon, and M. Broyer
Anomalous Shape and Decay of Islands on Au(110) 1966
M. J. Rost, R. van Gastel, and J. W. M. Frenken

Condensed Matter: Electronic Properties, etc.

Mesoscopic Sensitivity of Speckles in Disordered Nonlinear Media to Changes of the Scattering Potential 1970
B. Spivak and A. Zyuzin
Fractional Quantum Conductance in Carbon Nanotubes 1974
Stefano Sanvito, Young-Kyun Kwon, David Tománek, and Colin J. Lambert
Spectral Function of Composites from Reflectivity Measurements 1978
A. R. Day, A. R. Grant, A. J. Sievers, and M. F. Thorpe
Nematic Phase of the Two-Dimensional Electron Gas in a Magnetic Field 1982
Eduardo Fradkin, Steven A. Kivelson, Efstratios Manousakis, and Kwangsik Nho
Double Quantum Dots as Detectors of High-Frequency Quantum Noise in Mesoscopic Conductors 1986
Ramón Aguado and Leo P. Kouwenhoven

(Continued on Preceding Page)

Contents (Continued)

Large Isotope Effect on the Pseudogap in the High-Temperature Superconductor $HoBa_2Cu_4O_8$ 1990
D. Rubio Temprano, J. Mesot, S. Janssen, K. Conder, A. Furrer, H. Mutka, and K. A. Müller
Vortices Freeze like Window Glass: The Vortex Molasses Scenario 1994
Charles Reichhardt, Anne van Otterlo, and Gergely T. Zimányi
Anomalous Magnetotransport Properties of $R_2Mo_2O_7$ near the Magnetic Phase Boundary 1998
T. Katsufuji, H. Y. Hwang, and S-W. Cheong
Strong Surface State Effects in Nonlinear Magneto-optical Response of Ni(110) 2002
K. J. Veenstra, A. V. Petukhov, E. Jurdik, and Th. Rasing
Femtosecond Coherent Dynamics of the Fermi-Edge Singularity and Exciton Hybrid 2006
T. V. Shahbazyan, N. Primozich, I. E. Perakis, and D. S. Chemla
Many-Body Renormalization of Semiconductor Quantum Wire Excitons: Absorption, Gain, Binding, and Unbinding ... 2010
S. Das Sarma and D. W. Wang

Interdisciplinary Physics: Biological Physics, Quantum Information, etc.
Limits for Entanglement Measures 2014
Michał Horodecki, Paweł Horodecki, and Ryszard Horodecki
Viscous Sintering Phenomena in Liquid-Liquid Dispersions 2018
John Philip, L. Bonakdar, P. Poulin, J. Bibette, and F. Leal-Calderon
Observation of Chaotic Dynamics in Dilute Sheared Aqueous Solutions of CTAT 2022
Ranjini Bandyopadhyay, Geetha Basappa, and A. K. Sood
Glassy Transition in a Disordered Model for the RNA Secondary Structure 2026
A. Pagnani, G. Parisi, and F. Ricci-Tersenghi
Cryptographical Properties of Ising Spin Systems 2030
Yoshiyuki Kabashima, Tatsuto Murayama, and David Saad

Comments
Comment on "Physical Picture for Light Emission in Scanning Tunneling Microscopy" 2034
P. Johansson, R. Berndt, J. K. Gimzewski, and S. P. Apell
Xiao Replies 2035
Mufei Xiao
Comment on "Precision Neutron Interferometric Search for Evidence of Nuclear Quantum Entanglement in Liquid H_2O-D_2O Mixtures" 2036
C. A. Chatzidimitriou-Dreismann, T. Abdul Redah, R. M. F. Streffer, and B. Hessmo
Ioffe *et al.* Reply 2037
A. Ioffe, M. Arif, D. L. Jacobson, and F. Mezei
Comment on "Adatom Formation on the Ni(110) Surface" 2038
W. Theis
Silvestri, Graham, and Toennies Reply 2039
W. Silvestri, A. P. Graham, and J. P. Toennies
Comment on "Complementarity Enforced by Random Classical Phase Kicks" 2040
Berthold-Georg Englert, Marlan O. Scully, and Herbert Walther
Luis and Sánchez-Soto Reply 2041
A. Luis and L. L. Sánchez-Soto
Comment on "Carrier Density Collapse and Colossal Magnetoresistance in Doped Manganites" 2042
E. L. Nagaev
Alexandrov and Bratkovsky Reply 2043
A. S. Alexandrov and A. M. Bratkovsky
Comment on "Density Matrix Renormalization Group Study of the Haldane Phase in Random One-Dimensional Antiferromagnets" 2044
Kun Yang and R. A. Hyman
Hida Replies 2045
Kazuo Hida