PHYSICAL REVIEW LETTERS

Contents

VOLUME 78, NUMBER 16 21 April 1997

General Physics

Three-Particle Entanglements from Two Entangled Pairs 3031
Anton Zeilinger, Michael A. Horne, Harald Weinfurter, and Marek Żukowski

Barrier Tunneling and Reflection in the Time and Energy Domains: The Battle of the Exponentials 3035
N. T. Maitra and E. J. Heller

Steady State and Dynamics of Driven Diffusive Systems with Quenched Disorder 3039
Goutam Tripathy and Mustansir Barma

Gravitation and Astrophysics

Indication of Anisotropy in Electromagnetic Propagation over Cosmological Distances 3043
Borge Nodland and John P. Ralston

Preliminary Results of a Determination of the Newtonian Constant of Gravitation: A Test of the Kuroda Hypothesis 3047
Charles H. Bagley and Gabriel G. Luther

General Relativity in Terms of Dirac Eigenvalues 3051
Giovanni Landi and Carlo Rovelli

Elementary Particles and Fields

New Signature for Gauge Mediated Supersymmetry Breaking 3055
D. A. Dicus, B. Dutta, and S. Nandi

Calculation of Hadron Form Factors from Euclidean Dyson-Schwinger Equations 3059
M. Burkardt, M. R. Frank, and K. L. Mitchell

Wide Scalar Neutrino Resonance and $b\bar{b}$ Production at the CERN Collider LEP 3063
Jens Erler, Jonathan L. Feng, and Nir Polonsky

Nuclear Physics

Observation of Kaonic Hydrogen K_α X Rays 3067
M. Iwasaki, R. S. Hayano, T. M. Ito, S. N. Nakamura, T. P. Terada, D. R. Gill, L. Lee, A. Olin, M. Salomon, S. Yen, K. Bartlett, G. A. Beer, G. Mason, G. Trayling, H. Outa, T. Taniguchi, Y. Yamashita, and R. Seki

Inelasticity Distributions in High-Energy p-Nucleus Collisions 3070
Yogiro Hama and Samya Paiva

Entrance Channel Dependent Light Charged Particle Emission from the ^{156}Er Compound Nucleus 3074
J. F. Liang, J. D. Bierman, M. P. Kelly, A. A. Sonzogni, R. Vandenbosch, and J. P. S. van Schagen

Atomic, Molecular, and Optical Physics

Interpretation of Higher Order Magnetic effects in the Spectra of Transition Metal Ions in Terms of SO(5) and Sp(10) 3078
J. E. Hansen, B. R. Judd, A. J. J. Raassen, and P. H. M. Uylings

Dramatic Changes in the 3s Autoionization Process at the Beginning of the Ar I Sequence 3082
P. van Kampen, G. O'Sullivan, V. K. Ivanov, A. N. Ipatov, J. T. Costello, and E. T. Kennedy

Jaynes-Cummings Model for a Trapped Ion in Any Position of a Standing Wave 3086
Ying Wu and Xiaoxue Yang

(Continued on Third Cover)

CODEN: PRLTAO 78 (16), 3031–3227 (21 April 1997)

Contents (Continued)

Vibrational State Distribution of Na_2^+ Ions Created in Ultracold Collisions 3089
J. J. Blangé, J. M. Zijlstra, A. Amelink, X. Urbain, H. Rudolph, P. van der Straten, H. C. W. Beijerinck, and H. G. M. Heideman
Magnetic Field Control of the NO_2 Photodissociation Threshold 3093
R. Jost, J. Nygård, A. Pasinski, and A. Delon
Time-dependent Density Functional Results for the Dynamic Hyperpolarizability of C_{60} 3097
S. J. A. van Gisbergen, J. G. Snijders, and E. J. Baerends

Nonlinear Dynamics, Fluid Dynamics, Classical Optics, Etc.
Stochastic Resonance in Chaotic Spin-Wave Dynamics 3101
Ekkehard Reibold, Wolfram Just, Jens Becker, and Hartmut Benner,
Sub-Shot-Noise laser Doppler Anemometry with Amplitude-Squeezed Light 3105
Yong-qing Li, Peter Lynam, Min Xiao, and Paul J. Edwards

Plasma and Beam Physics
Measuring the Resonance Structure of Accelerator Impedance with Single Bunches 3109
T. Bohl, T. P. R. Linnecar, and E. Shaposhnikova
Structure of Confined Yukawa System (Dusty Plasma) 3113
Hiroo Totsuji, Tokunari Kishimoto, and Chieko Totsuji
Identification of Y-Shaped and O-Shaped Diffusion Regions During Magnetic Reconnection in a Laboratory Plasma ... 3117
Masaaki Yamada, Hantao Ji, Scott Hsu, Troy Carter, Russell Kulsrud, Yasushi Ono, and Francis Perkins
High Intensity Laser Absorption by Gases of Atomic Clusters 3121
T. Ditmire, R. A. Smith, J. W. G. Tisch, and M. H. R. Hutchinson
Electron Acceleration by a Laser Wakefield in a Relativistically Self-Guided Channel 3125
R. Wagner, S.-Y. Chen, A. Maksimchuk, and D. Umstadter
Experimental Evidence for Zigzag Instability of Solitary Stripes in a Gas Discharge System 3129
Yu. A. Astrov, E. Ammelt, and H.-G. Purwins

Condensed Matter: Structure, Etc.
Study of Interfacial Point Defects by Ballistic Electron Emission Microscopy 3133
T. Meyer and H. von Känel
Anomalous Dislocation Kink Drift in Germanium 3137
Yu. L. Iunin, V. I. Nikitenko, V. I. Orlov, and B. V. Petukhov
Structural Instability in Ice VIII under Pressure 3141
J. M. Besson, S. Klotz, G. Hamel, W. G. Marshall, R. J. Nelmes, and J. S. Loveday
Exact Scaling Law for the Fragmentation of Percolation Clusters: Numerical Evidence 3145
Jean-Marc Debierre
Instabilities and Disorder of the Domain Patterns in Systems with Competing Interactions 3149
C. B. Muratov
Can Liquid Metal Surfaces Have Hexatic Order? 3153
Franck Celestini, Furio Ercolessi, and Erio Tosatti
Bending Energy of Amphiphilic Films at the Nanometer Scale 3157
C. Gourier, J. Daillant, A. Braslau, M. Alba, K. Quinn, D. Luzet, C. Blot, D. Chatenay, G. Grübel, J.-F. Legrand, and G. Vignaud

Condensed Matter: Electronic Properties, Etc.
Electronic Structure of Amorphous Silicon Nanoclusters 3161
G. Allan, C. Delerue, and M. Lannoo
HgSe: Metal or Semiconductor? 3165
K.-U. Gawlik, L. Kipp, M. Skibowski, N. Orłowski, and R. Manzke
Giant Mesoscopic Fluctuations of Quantum Dot Conductance Caused by Strong Electromagnetic Irradiation 3169
L. Y. Gorelik, Frank A. Maaø, R. I. Shekhter, and M. Jonson

(Continued on Preceding Page)

Contents (Continued)

3D *XY* and Lowest Landau Level Fluctuations in Deoxygenated $YBa_2Cu_3O_{7-\delta}$ Thin Films 3173
Katerina Moloni, Mark Friesen, Shi Li, Victor Souw, P. Metcalf, Lifang Hou, and M. McElfresh
Effects of Columnar Defects on the Josephson Plasma Resonance in $Bi_2Sr_2CaCu_2O_y$ 3177
Tetsuo Hanaguri, Yoshishige Tsuchiya, Song Sakamoto, Atsutaka Maeda, and David G. Steel
Superfast Vortex Creep in $YBa_2Cu_3O_{7-\delta}$ Crystals with Columnar Defects: Evidence for Variable-Range Vortex Hopping 3181
J. R. Thompson, L. Krusin-Elbaum, L. Civale, G. Blatter, and C. Feild
Small Angle Neutron Scattering Studies of the Vortex Lattice in the UPt_3 Mixed State: Direct Structural Evidence for the $B \rightarrow C$ Transition 3185
U. Yaron, P. L. Gammel, G. S. Boebinger, G. Aeppli, P. Schiffer, E. Bucher, D. J. Bishop, C. Broholm, and K. Mortensen
Theory of Neutron Diffraction from the Vortex Lattice in UPt_3 3189
Robert Joynt
Green Function of the Sutherland Model with SU(2) Internal Symmetry 3193
Yusuke Kato
Antiferromagnetic Short Range Order in a Two-Dimensional Manganite Exhibiting Giant Magnetoresistance 3197
T. G. Perring, G. Aeppli, Y. Moritomo, and Y. Tokura
Low-Temperature Specific Heat of $La_{1-x}Sr_xMnO_{3+\delta}$ 3201
B. F. Woodfield, M. L. Wilson, and J. M. Byers
Coherent vs Incoherent Emission from Semiconductor Structures after Resonant Femtosecond Excitation 3205
Massimo Gurioli, Franco Bogani, Simone Ceccherini, and Marcello Colocci
Electron Emission from Solids Bombarded by Slow Neutrals 3209
Zdenek Šroubek
Trapping of Ions at Metal Surfaces 3213
D. M. Goodstein, E. B. Dahl, C. A. DiRubio, and B. H. Cooper

Cross-Disciplinary Physics

Capacities of Quantum Erasure Channels 3217
Charles H. Bennett, David P. DiVincenzo, and John A. Smolin
Quantum State Transfer and Entanglement Distribution among Distant Nodes in a Quantum Network 3221
J. I. Cirac, P. Zoller, H. J. Kimble, and H. Mabuchi

Comments

Comment on "Directed Beam of Excitons Produced by Stimulated Scattering" 3225
S. G. Tikhodeev
Mysyrowicz, Benson, and Fortin Reply 3226
A. Mysyrowicz, E. Benson, and E. Fortin

Errata

Optical Solitons in Presence of Kerr Dispersion and Self-Frequency Shift [Phys. Rev. Lett. **76**, 3955 (1996)] 3227
K. Porsezian and K. Nakkeeran