



Evolution of a model population in 2D "ideological space" under the competing influences of "conformity" and "dissent". In the model, nonconformist members reproduce more, with offspring replacing other random members. The image shows a population initially made up of 2 close groups (red) which splits up due to "dissent"; as the tendency to conform comes into play it regroups, eventually forming 3 distinct opinion clusters (mauve). See article 258103.

PHYSICAL REVIEW LETTERS

Contents

Articles published 21 June–27 June 2003

VOLUME 90, NUMBER 25

27 JUNE 2003

General Physics

Experimental Test of the Kochen-Specker Theorem with Single Photons	250401
Yun-Feng Huang, Chuan-Feng Li, Yong-Sheng Zhang, Jian-Wei Pan, and Guang-Can Guo	
Dimer State of Spin-1 Bosons in an Optical Lattice	250402
S. K. Yip	
Roton-Maxon Spectrum and Stability of Trapped Dipolar Bose-Einstein Condensates	250403
L. Santos, G. V. Shlyapnikov, and M. Lewenstein	
Proposal for Translational Entanglement of Dipole-Dipole Interacting Atoms in Optical Lattices	250404
Tomáš Opatrný, Bimalendu Deb, and Gershon Kurizki	
Near-Field Short Range Correlation in Optical Waves Transmitted through Random Media	250801
V. Emiliani, F. Intonti, M. Cazayous, D. S. Wiersma, M. Colocci, F. Aliev, and A. Legendijk	

Gravitation and Astrophysics

Limits on Diffuse Fluxes of High Energy Extraterrestrial Neutrinos with the AMANDA-B10 Detector	251101
J. Ahrens <i>et al.</i>	

Elementary Particles and Fields

Search for the Supersymmetric Partner of the Top Quark in Dilepton Events from $p\bar{p}$ Collisions at $\sqrt{s} = 1.8$ TeV	251801
D. Acosta <i>et al.</i> (CDF Collaboration)	
Search for Large Extra Dimensions in the Monojet + $\cancel{E}_T$ Channel with the DØ Detector	251802
V. M. Abazov <i>et al.</i> (DØ Collaboration)	
Resonance-Continuum Interference in the Diphoton Higgs Signal at the LHC	252001
Lance Dixon and M. Stewart Siu	

Nuclear Physics

Relativistic Kinetic Equations for Finite Domains and the Freeze-Out Problem	252301
K. A. Bugaev	
Can Modern Nuclear Hamiltonians Tolerate a Bound Tetraneutron?	252501
Steven C. Pieper	

Atomic, Molecular, and Optical Physics

Selective Addressing of High-Rank Atomic Polarization Moments	253001
V. V. Yashchuk, D. Budker, W. Gawlik, D. F. Kimball, Yu. P. Malakyan, and S. M. Rochester	
Multichannel Cold Collisions between Metastable Sr Atoms	253201
Viatcheslav Kokoouline, Robin Santra, and Chris H. Greene	

(Continued on Third Cover)

Contents (Continued)

Efficient Engineering of Multiatom Entanglement through Single-Photon Detections	253601
L.-M. Duan and H.J. Kimble	
Nonlinear Dynamics, Fluid Dynamics, Classical Optics, etc.	
Strongly Localized Mode at the Intersection of the Phase Slips in a Photonic Crystal without Band Gap	253901
V.M. Apalkov and M.E. Raikh	
Observation of Mutually Trapped Multiband Optical Breathers in Waveguide Arrays	253902
D. Mandelik, H.S. Eisenberg, Y. Silberberg, R. Morandotti, and J.S. Aitchison	
Stable Dissipative Solitons in Semiconductor Optical Amplifiers	253903
Erdem A. Ultanir, George I. Stegeman, Dirk Michaelis, Christoph H. Lange, and Falk Lederer	
Information Flow in Chaos Synchronization: Fundamental Tradeoffs in Precision, Delay, and Anticipation	254101
Shawn D. Pethel, Ned J. Corron, Quitisha R. Underwood, and Krishna Myneni	
Collisions of Two Solitons in an Arbitrary Number of Coupled Nonlinear Schrödinger Equations	254102
Marin Soljačić, Ken Steiglitz, Suzanne M. Sears, Mordechai Segev, Mariusz H. Jakubowski, and Richard Squier	
Order Parameter Description of Stationary Partially Fluidized Shear Granular Flows	254301
Dmitri Volfson, Lev S. Tsimring, and Igor S. Aranson	
Coda-Wave Interferometry in Finite Solids: Recovery of <i>P</i> -to- <i>S</i> Conversion Rates in an Elastodynamic Billiard	254302
Oleg I. Lobkis and Richard L. Weaver	
Kolmogorov's Third Hypothesis and Turbulent Sign Statistics	254501
Qiaoning Chen, Shiyi Chen, Gregory L. Eyink, and Katepalli R. Sreenivasan	
Plasma and Beam Physics	
Modification of the Current Profile in High-Performance Plasmas using Off-Axis Electron-Cyclotron-Current Drive in DIII-D	255001
M. Murakami, M.R. Wade, C.M. Greenfield, T.C. Luce, M.A. Makowski, C.C. Petty, J.C. DeBoo, J.R. Ferron, R.J. Jayakumar, L.L. Lao, J. Lohr, P.A. Politzer, R. Prater, and H.E. St. John	
Reduction of Electron Heating in the Low-Frequency Anomalous-Skin-Effect Regime	255002
Yu.O. Tyshetskiy, A.I. Smolyakov, and V.A. Godyak	
Condensed Matter: Structure, etc.	
Large Difference in the Elastic Properties of fcc and hcp Hard-Sphere Crystals	255501
Sander Pronk and Daan Frenkel	
Brillouin Study of the Quantization of Acoustic Modes in Nanospheres	255502
M.H. Kuok, H.S. Lim, S.C. Ng, N.N. Liu, and Z.K. Wang	
Fourier-Expansion Solution of Atom Distributions in a Crystal Using X-Ray Standing Waves	255503
L. Cheng, P. Fenter, M.J. Bedzyk, and N.C. Sturchio	
<i>In Situ</i> Observation of the Formation of Fe ₃ O ₄ in Fe ₄ N (001) due to Electron Irradiation	255504
Z.Q. Liu, H. Hashimoto, E. Sukedai, M. Song, K. Mitsuishi, and K. Furuya	
Nature of the First-Order Phase Transition in Fluid Phosphorus at High Temperature and Pressure	255701
G. Monaco, S. Falconi, W.A. Crichton, and M. Mezouar	
Observation of a Smecticlike Crystalline Structure in Polydisperse Colloids	255702
Stephen Martin, Gary Bryant, and William van Megen	
Seeing the Atomic Orbital: First-Principles Study of the Effect of Tip Termination on Atomic Force Microscopy ...	256101
Minghuang Huang, Martin Cuma, and Feng Liu	
Why is a Noble Metal Catalytically Active? The Role of the O-Ag Interaction in the Function of Silver as an Oxidation Catalyst	256102
Wei-Xue Li, Catherine Stampfl, and Matthias Scheffler	
Condensed Matter: Electronic Properties, etc.	
Cluster-Doping Approach for Wide-Gap Semiconductors: The Case of <i>p</i> -Type ZnO	256401
L.G. Wang and Alex Zunger	
Unconventional Charge-Density Wave in the Organic Conductor α -(BEDT-TTF) ₂ KHg(SCN) ₄	256402
Kazumi Maki, Balázs Dóra, Mark Kartsovnik, Attila Virosztek, Bojana Korin-Hamzić, and Mario Basletić	

(Continued on Preceding Page)

Contents (Continued)

Antisymmetric Spin Filtering in One-Dimensional Electron Systems with Uniform Spin-Orbit Coupling	256601
P. Štěda and P. Šeba	
Focusing of Spin Polarization in Semiconductors by Inhomogeneous Doping	256602
Yuriy V. Pershin and Vladimir Privman	
Optical Detection of Hot-Electron Spin Injection into GaAs from a Magnetic Tunnel Transistor Source	256603
X. Jiang, R. Wang, S. van Dijken, R. Shelby, R. Macfarlane, G.S. Solomon, J. Harris, and S.S.P. Parkin	
Quantum Shuttle in Phase Space	256801
Tomáš Novotný, Andrea Donarini, and Antti-Pekka Jauho	
Disorder-Driven Collapse of the Mobility Gap and Transition to an Insulator in the Fractional Quantum Hall Effect	256802
D.N. Sheng, Xin Wan, E.H. Rezayi, Kun Yang, R.N. Bhatt, and F.D.M. Haldane	
Electronic Structure of Carbon Nanostripes	256803
A.M. Shikin, S.A. Gorovikov, V.K. Adamchuk, W. Gudat, and O. Rader	
Thermally Activated Spontaneous Fluxoid Formation in Superconducting Thin Film Rings	257001
J.R. Kirtley, C.C. Tsuei, and F. Tafuri	
Suppression of the Charge-Density-Wave State in $\text{Sr}_{14}\text{Cu}_{24}\text{O}_{41}$ by Calcium Doping	257002
T. Vuletić, B. Korin-Hamzić, S. Tomić, B. Gorshunov, P. Haas, T. Rõõm, M. Dressel, J. Akimitsu, T. Sasaki, and T. Nagata	
Exchange-Induced Anisotropies at Ferromagnetic-Antiferromagnetic Interfaces above and below the Néel Temperature	257201
M. Grimsditch, A. Hoffmann, P. Vavassori, Hongtao Shi, and D. Lederman	
Magnetic Field Induced Sign Reversal of the Anomalous Hall Effect in a Pyrochlore Ferromagnet $\text{Nd}_2\text{Mo}_2\text{O}_7$: Evidence for a Spin Chirality Mechanism	257202
Y. Taguchi, T. Sasaki, S. Awaji, Y. Iwasa, T. Tayama, T. Sakakibara, S. Iguchi, T. Ito, and Y. Tokura	
Magnetism of Transition-Metal/Carbon-Nanotube Hybrid Structures	257203
Chih-Kai Yang, Jijun Zhao, and Jian Ping Lu	
X-Ray Mass Attenuation Coefficient of Silicon: Theory versus Experiment	257401
C.Q. Tran, C.T. Chantler, and Z. Barnea	
Coherent Spectroscopy of Optically Gated Charged Single InGaAs Quantum Dots	257402
L. Besombes, J.J. Baumberg, and J. Motohisa	
Chemically Doped Double-Walled Carbon Nanotubes: Cylindrical Molecular Capacitors	257403
Gugang Chen, S. Bandow, E.R. Margine, C. Nisoli, A.N. Kolmogorov, Vincent H. Crespi, R. Gupta, G.U. Sumanasekera, S. Iijima, and P.C. Eklund	
Temperature Dependence of the Luminescence Lifetime of Single CdSe/ZnS Quantum Dots	257404
Olivier Labeau, Philippe Tamarat, and Brahim Lounis	
Pressure-Induced Suppression of the Diffuse Scattering in the Model Relaxor Ferroelectric $\text{PbMg}_{1/3}\text{Nb}_{2/3}\text{O}_3$	257601
B. Chaabane, J. Kreisel, B. Dkhil, P. Bouvier, and M. Mezouar	
Strained Hexagonal ScN: A Material with Unusual Structural and Optical Properties	257602
V. Ranjan, L. Bellaiche, and Eric J. Walter	
Interdisciplinary Physics: Biological Physics, Quantum Information, etc.	
Quantum Filtering and Discrimination between Sets of Boolean Functions	257901
János A. Bergou, Ulrike Herzog, and Mark Hillery	
Imperfection Effects for Multiple Applications of the Quantum Wavelet Transform	257902
M. Terraneo and D.L. Shepelyansky	
Time-Dependent Density-Functional Approach for Biological Chromophores: The Case of the Green Fluorescent Protein	258101
Miguel A.L. Marques, Xabier López, Daniele Varsano, Alberto Castro, and Angel Rubio	
Self-Organized Pattern Formation of a Bacteria Colony Modeled by a Reaction Diffusion System and Nucleation Theory	258102
Joe Y. Wakano, Shinya Maenosono, Atsushi Komoto, Noriko Eiha, and Yukio Yamaguchi	
The Dynamics of Multidimensional Secession: Fixed Points and Ideological Condensation	258103
Arne Soulier and Tim Halpin-Healy	
Origins of Chevron Rollovers in Non-Two-State Protein Folding Kinetics	258104
Hüseyin Kaya and Hue Sun Chan	

(Continued on Preceding Page)

Contents (Continued)

Evolutionary Stability of Ecological Hierarchy	258105
Taksu Cheon	
A Spin Cell for Spin Current	258301
Qing-feng Sun, Hong Guo, and Jian Wang	
High-Power 140-GHz Quasioptical Gyrotron Traveling-Wave Amplifier	258302
J.R. Sirigiri, M.A. Shapiro, and R.J. Temkin	
Local Stress Relaxation and Shear Banding in a Dry Foam under Shear	258303
Alexandre Kabla and Georges Debrégeas	
Comments	
Comment on “Bell’s Theorem without Inequalities and without Probabilities for Two Observers”	258901
Luca Marinatto	
Cabello Replies	258902
Adán Cabello	
Errata	
Erratum: Instability of Thin Liquid Films by Density Variations: A New Mechanism that Mimics Spinodal Dewetting [Phys. Rev. Lett. 89 , 186101 (2002)]	259901
Ashutosh Sharma and Jeetain Mittal	
Author Index to Volume 90 (Part II)	i