

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 78, NUMBER 4

OCTOBER 2008

- Quantitative description of realistic wealth distributions by kinetic trading models (*4 pages*) 047103
Nelson Lammoglia, Víctor Muñoz, José Rogan, Benjamín Toledo, Roberto Zarama, and
Juan Alejandro Valdivia

Chaos and pattern formation

- Experimental evidence of wave chaos from a double slit experiment with water surface waves (*4 pages*) 047201
Yunfei Tang, Yifeng Shen, Jiong Yang, Xiaohan Liu, Jian Zi, and Baowen Li

Fluid dynamics

- Amplitude equation and long-range interactions in underwater sand ripples in one dimension (*4 pages*) 047301
Teis Schnipper, Keith Mertens, Clive Ellegaard, and Tomas Bohr

COMMENTS

- Comment on “Properties of highly clustered networks” (*2 pages*) 048101
Istvan Z. Kiss and Darren M. Green

ERRATA

- Publisher’s Note: Thermodynamics of two lattice ice models in three dimensions [Phys. Rev. E **78**, 041113
(2008)] (*1 page*) 049901(E)
Chizuru Muguruma, Yuko Okamoto, and Bernd A. Berg

Computational physics

Simulation of two- and three-dimensional dense-fluid shear flows via nonequilibrium molecular dynamics: Comparison of time-and-space-averaged stresses from homogeneous Doll's and Sllod shear algorithms with those from boundary-driven shear (14 pages)	046701
Wm. G. Hoover, Carol G. Hoover, and Janka Petravic	
Perturbational formulation of principal component analysis in molecular dynamics simulation (11 pages)	046702
Yohei M. Koyama, Tetsuya J. Kobayashi, Shuji Tomoda, and Hiroki R. Ueda	
Lattice Boltzmann model for incompressible axisymmetric flows (8 pages)	046703
Sheng Chen, Jonas Tölke, Sebastian Geller, and Manfred Krafczyk	
Variational method for estimating the rate of convergence of Markov-chain Monte Carlo algorithms (12 pages)	046704
Fergal P. Casey, Joshua J. Waterfall, Ryan N. Gutenkunst, Christopher R. Myers, and James P. Sethna	
Optimal modification factor and convergence of the Wang-Landau algorithm (8 pages)	046705
Chenggang Zhou (周成钢) and Jia Su (苏佳)	
Hydrodynamic interactions for single dissipative-particle-dynamics particles and their clusters and filaments (12 pages)	046706
Wenxiao Pan, Dmitry A. Fedosov, George Em Karniadakis, and Bruce Caswell	
Characteristic nonreflecting boundary conditions for open boundaries in lattice Boltzmann methods (7 pages)	046707
Salvador Izquierdo and Norberto Fueyo	
Nonreflecting boundaries for ultrasound in fluctuating hydrodynamics of open systems (14 pages)	046708
R. Delgado-Buscalioni and A. Dejoan	
Interaction potential for atomic simulations of conventional high explosives (8 pages)	046709
Andrew J. Heim, Niels Grønbech-Jensen, Edward M. Kober, Jerome J. Erpenbeck, and Timothy C. Germann	
Molecular dynamics simulations of detonation instability (6 pages)	046710
Andrew J. Heim, Niels Grønbech-Jensen, Edward M. Kober, and Timothy C. Germann	
Lattice Boltzmann simulation of catalytic reactions (8 pages)	046711
S. Arcidiacono, J. Mantzaras, and I. V. Karlin	
Improved path integration method for estimating the intrinsic viscosity of arbitrarily shaped particles (11 pages)	046712
Marc L. Mansfield and Jack F. Douglas	
Temporal coarse-graining of microscopic-lattice kinetic Monte Carlo simulations via τ leaping (7 pages)	046713
D. G. Vlachos	

BRIEF REPORTS**Interdisciplinary physics**

Simple reaction-diffusion population model on scale-free networks (4 pages)	047101
An-Cai Wu, Xin-Jian Xu, J. F. F. Mendes, and Ying-Hai Wang	
Distribution of the largest event in the critical epidemic-type aftershock-sequence model (3 pages)	047102
David Vere-Jones and Jiancang Zhuang	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 78, NUMBER 4

OCTOBER 2008

Analytical model of particle charging in plasmas over a wide range of collisionality (<i>6 pages</i>)	046402
Marco Gatti and Uwe Kortshagen	
Non-Gaussian statistics and superdiffusion in a driven-dissipative dusty plasma (<i>10 pages</i>)	046403
Bin Liu, J. Goree, and Yan Feng	
Coronal hydrodynamics of laser-produced plasmas (<i>10 pages</i>)	046404
A. Aliverdiev, D. Batani, R. Dezulian, T. Vinci, A. Benuzzi-Mounaix, M. Koenig, and V. Malka	
Rotation of a strongly magnetized hydrogen plasma column determined from an asymmetric Balmer- β spectral line with two radiating distributions (<i>11 pages</i>)	046405
A. E. Shumack, V. P. Veremiyenko, D. C. Schram, H. J. de Blank, W. J. Goedheer, H. J. van der Meiden, W. A. J. Vijvers, J. Westerhout, N. J. Lopes Cardozo, and G. J. van Rooij	
Theoretical analysis and simulations of strong terahertz radiation from the interaction of ultrashort laser pulses with gases (<i>7 pages</i>)	046406
Min Chen, Alexander Pukhov, Xiao-Yu Peng, and Oswald Willi	
Spectrally resolved and Rosseland and Planck mean opacities of iron plasmas at temperatures above 100 eV: A systematic study (<i>10 pages</i>)	046407
Gao Cheng and Zeng Jiaolong	
Dispersive properties of a magnetized degenerate electron gas (<i>17 pages</i>)	046408
Jeanette I. Weise	
Classical physics	
Electromagnetic interactions between a fast electron beam and metamaterial cloaks (<i>7 pages</i>)	046601
Jinying Xu, Yunxia Dong, and Xiangdong Zhang	
Qualitative and quantitative analysis of stability and instability dynamics of positive lattice solitons (<i>16 pages</i>)	046602
Y. Sivan, G. Fibich, B. Ilan, and M. I. Weinstein	
Explosive dynamics and localization of wave triads in a coupled magnetoelastic system (<i>4 pages</i>)	046603
V. Preobrazhensky, O. Bou Matar, and P. Pernod	
Radiationless energy exchange in three-soliton collisions (<i>10 pages</i>)	046604
Sergey V. Dmitriev, Panayotis G. Kevrekidis, and Yuri S. Kivshar	
Accelerating Airy wave packets in the presence of quadratic and cubic dispersion (<i>6 pages</i>)	046605
Ioannis M. Besieris and Amr M. Shaarawi	
Absence of a consistent classical equation of motion for a mass-renormalized point charge (<i>12 pages</i>)	046606
Arthur D. Yaghjian	
Analytical formulation for soliton-potential dynamics (<i>8 pages</i>)	046607
Kurosh Javidan	
Reduction of superintegrable systems: The anisotropic harmonic oscillator (<i>6 pages</i>)	046608
Miguel A. Rodríguez, Piergiulio Tempesta, and Pavel Winternitz	
Electromagnetic transparency by coated spheres with radial anisotropy (<i>11 pages</i>)	046609
L. Gao, T. H. Fung, K. W. Yu, and C. W. Qiu	
Random input problem for the nonlinear Schrödinger equation (<i>12 pages</i>)	046610
Stanislav A. Derevyanko and Jaroslaw E. Prilepsky	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 78, NUMBER 4

OCTOBER 2008

Ergodicity of ideal Galerkin three-dimensional magnetohydrodynamics and Hall magnetohydrodynamics models (7 pages)	046302
S. Servidio, W. H. Matthaeus, and V. Carbone	
Localization and spectral phase transition in an open advecting-diffusing three-dimensional Stokes flow (9 pages)	046303
M. Giona and S. Cerbelli	
Multidirectional sorting modes in deterministic lateral displacement devices (9 pages)	046304
Brian R. Long, Martin Heller, Jason P. Beech, Heiner Linke, Henrik Bruus, and Jonas O. Tegenfeldt	
Subcritical instabilities in a convective fluid layer under a quasi-one-dimensional heating (12 pages)	046305
M. A. Miranda and J. Burguete	
Depletion of horizontal pair diffusion in strongly stratified turbulence: Comparison with plane two-dimensional flows (15 pages)	046306
F. Nicolleau, K.-S. Sung, and J. C. Vassilicos	
Effect of particle-particle collision in decaying homogeneous and isotropic turbulence (10 pages)	046307
Nan Gui, JianRen Fan, and Kefa Cen	
Lattice Boltzmann study of convective drop motion driven by nonlinear chemical kinetics (10 pages)	046308
K. Furtado, C. M. Pooley, and J. M. Yeomans	
Dynamics of capillary absorption of droplets by carbon nanotubes (6 pages)	046309
D. Schebarchov and S. C. Hendy	
Lifetime statistics in transitional pipe flow (10 pages)	046310
Tobias M. Schneider and Bruno Eckhardt	
Polymer flexibility and turbulent drag reduction (6 pages)	046311
J. J. J. Gillissen	
Spatiotemporal instability of a confined capillary jet (7 pages)	046312
M. A. Herrada, A. M. Gañán-Calvo, and P. Guillot	
Spectral lines of OH radicals and Na atoms in sonoluminescence (6 pages)	046313
Yu An and Chaohui Li	
Lattice-Boltzmann simulation of two-dimensional flow over two vibrating side-by-side circular cylinders (12 pages)	046314
Yousheng Xu, Yang Liu, Yong Xia, and Fengmin Wu	
Thermal convection in mixtures with an inversion of the separation ratio (12 pages)	046315
B. Huke, H. Pleiner, and M. Lücke	
Instability of electro-osmotic channel flow with streamwise conductivity gradients (10 pages)	046316
J. Jobim Santos and Brian D. Storey	
Influence of the dispersive and dissipative scales α and β on the energy spectrum of the Navier-Stokes $\alpha\beta$ equations (10 pages)	046317
Xuemei Chen and Eliot Fried	

Plasma physics

Improvement of energy-conversion efficiency from laser to proton beam in a laser-foil interaction (6 pages)	046401
Y. Nodera, S. Kawata, N. Onuma, J. Limpouch, O. Klimo, and T. Kikuchi	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 78, NUMBER 4

OCTOBER 2008

Rectified oscillatory motion of the self-ordered front under zero-mean ac force: Role of symmetry of the rate function (<i>11 pages</i>)	046202
R. Bakanas	
Refined fiber laser model (<i>10 pages</i>)	046203
Will Ray, Kurt Wiesenfeld, and Jeffrey L. Rogers	
Transition to chaotic scattering: Signatures in the differential cross section (<i>6 pages</i>)	046204
Adriane B. Schelin, Alessandro P. S. de Moura, and Celso Grebogi	
Riemannian geometry of Hamiltonian chaos: Hints for a general theory (<i>17 pages</i>)	046205
Monica Cerruti-Sola, Guido Ciraolo, Roberto Franzosi, and Marco Pettini	
Onset of wavy vortices in Taylor-Couette flow with imperfect reflection symmetry (<i>9 pages</i>)	046206
J. Abshagen and G. Pfister	
Control of scroll-wave turbulence using resonant perturbations (<i>13 pages</i>)	046207
S. W. Morgan, I. V. Biktasheva, and V. N. Biktashev	
Soft wall effects on interacting particles in billiards (<i>9 pages</i>)	046208
H. A. Oliveira, C. Manchein, and M. W. Beims	
Control-based method to identify underlying delays of a nonlinear dynamical system (<i>9 pages</i>)	046209
Dongchuan Yu, Mattia Frasca, and Fang Liu	
Optimal weighted networks of phase oscillators for synchronization (<i>10 pages</i>)	046210
Takuma Tanaka and Toshio Aoyagi	
Entanglement and the generation of random states in the quantum chaotic dynamics of kicked coupled tops (<i>12 pages</i>)	046211
Collin M. Trail, Vaibhav Madhok, and Ivan H. Deutsch	
Complexity of quantum states and reversibility of quantum motion (<i>15 pages</i>)	046212
Valentin V. Sokolov, Oleg V. Zhirov, Giuliano Benenti, and Giulio Casati	
Rare events and their impact on velocity diffusion in a stochastic Fermi-Ulam model (<i>8 pages</i>)	046213
A. K. Karlis, F. K. Diakonov, V. Constantoudis, and P. Schmelcher	
Rhythmic oscillation and dynamic instability of micrometer-size phase separation under continuous photon flux by a focused laser (<i>4 pages</i>)	046214
Koichiro Sadakane, Hiroyuki Kitahata, Hideki Seto, and Kenichi Yoshikawa	
Transition from longitudinal to transversal patterns in an anisotropic system (<i>9 pages</i>)	046215
Martin May, Wolfgang Schöpf, Ingo Rehberg, Alexei Krekhov, and Agnes Buka	
Generalized synchronization of chaos in autonomous systems (<i>6 pages</i>)	046216
O. Alvarez-Llamoza and M. G. Cosenza	
Coupling design for a long-term anticipating synchronization of chaos (<i>4 pages</i>)	046217
Kestutis Pyragas and Tatjana Pyragienė	
Synchronization properties of coupled semiconductor lasers subject to filtered optical feedback (<i>8 pages</i>)	046218
Miguel C. Soriano, Flavio Ruiz-Oliveras, Pere Colet, and Claudio R. Mirasso	
Fluid dynamics	
Higher-order effects in rarefied channel flows (<i>11 pages</i>)	046301
Henning Struchtrup and Manuel Torrilhon	

(Continued)