

PHYSICAL REVIEW ETM

For editorial and subscription correspondence,
please see inside front cover
(ISSN: 1539-3755)

PERIODICALS
Postmaster send address changes to:
APS Subscription Services
P.O. Box 41
Annapolis Junction, MD 20701

THIRD SERIES, VOLUME 88, NUMBER 2
PARTS A AND B

CONTENTS

AUGUST 2013

The Table of Contents is a total listing of Parts A and B.
Part A consists of pages 020101(R)-022602, and Part B pages 022701-029903(E).

PART A

RAPID COMMUNICATIONS

Statistical Physics

- Violation of detailed balance accelerates relaxation (*4 pages*) 020101(R)
Akihisa Ichiki and Masayuki Ohzeki

Granular Materials

- Spatially modulated kinks in shallow granular layers (*4 pages*) 020201(R)
J. E. Macías, M. G. Clerc, C. Falcón, and M. A. García-Núñez

Colloids and Complex Fluids

- Oscillatory athermal quasistatic deformation of a model glass (*5 pages*) 020301(R)
Davide Fiocco, Giuseppe Foffi, and Srikanth Sastry
- Holographic measurements of anisotropic three-dimensional diffusion of colloidal clusters (*5 pages*) 020302(R)
Jerome Fung and Vinothan N. Manoharan

Films, Interfaces, and Crystal Growth

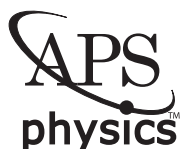
- Rotation-induced grain growth and stagnation in phase-field crystal models (*4 pages*) 020401(R)
Mathias Bjerre, Jens M. Tarp, Luiza Angheluta, and Joachim Mathiesen

Fluid Dynamics

- Temporal decorrelations in compressible isotropic turbulence (*4 pages*) 021001(R)
Dong Li, Xing Zhang, and Guowei He

Classical Physics

- Modified reduced Ostrovsky equation: Integrability and breaking (*5 pages*) 021201(R)
E. R. Johnson and R. H. J. Grimshaw



Copyright 2013 by American Physical Society

(Continued)



1539-3755(201308)88:2:B;1-1

Computational Physics

- Monte Carlo algorithm for simulating the $O(N)$ loop model on the square lattice (*4 pages*) 021301(R)
 Antônio Márcio P. Silva, Adriaan M. J. Schakel, and Giovanni L. Vasconcelos

ARTICLES

Statistical Physics

- Search times with arbitrary detection constraints (*9 pages*) 022101
 Daniel Campos, Frederic Bartumeus, and Vicenç Méndez
- Ginzburg criterion for ionic fluids: The effect of Coulomb interactions (*11 pages*) 022102
 O. Patsahan
- Local time in diffusive media and applications to imaging (*9 pages*) 022103
 Vincent Rossetto
- Solid-liquid transition in polydisperse Lennard-Jones systems (*9 pages*) 022104
 Sarmistha Sarkar, Rajib Biswas, Mantu Santra, and Biman Bagchi
- Dynamics of influence on hierarchical structures (*13 pages*) 022105
 Babak Fotouhi and Michael G. Rabbat
- Avalanche dynamics of elastic interfaces (*61 pages*) 022106
 Pierre Le Doussal and Kay Jörg Wiese
- Commutative law for products of infinitely large isotropic random matrices (*11 pages*) 022107
 Zdzisław Burda, Giacomo Livan, and Artur Swiech
- Microscopic theory of anomalous diffusion based on particle interactions (*8 pages*) 022108
 James F. Lutsko and Jean Pierre Boon
- Crystal growth inside an octant (*11 pages*) 022109
 Jason Olejarz and P. L. Krapivsky
- Typical and rare fluctuations in nonlinear driven diffusive systems with dissipation (*21 pages*) 022110
 Pablo I. Hurtado, A. Lasanta, and A. Prados
- Ground states of an Ising model on an extended Shastry-Sutherland lattice and the $1/2$ -magnetization plateau in some rare-earth-metal tetraborides (*13 pages*) 022111
 Yu. I. Dublenych
- Correlation functions in liquids and crystals: Free-energy functional and liquid-to-crystal transition (*18 pages*) ... 022112
 Atul S. Bharadwaj, Swarn L. Singh, and Yashwant Singh
- Momentum distribution functions in ensembles: The inequivalence of microcanonical and canonical ensembles in a finite ultracold system (*5 pages*) 022113
 Pei Wang, Gao Xianlong, and Haibin Li
- Critical manifold of globally coupled overdamped anharmonic oscillators driven by additive Gaussian white noise (*10 pages*) 022114
 Rüdiger Kürsten, Susanne Gütter, and Ulrich Behn

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 88, NUMBER 2

AUGUST 2013

Non-Gaussian propagator for elephant random walks (<i>6 pages</i>)	022115
M. A. A. da Silva, J. C. Cressoni, Gunter M. Schütz, G. M. Viswanathan, and Steffen Trimper	
Invariance in the recurrence of large returns and the validation of models of price dynamics (<i>15 pages</i>)	022116
Lo-Bin Chang, Stuart Geman, Fushing Hsieh, and Chii-Ruey Hwang	
Zero-temperature random-field Ising model on a bilayered Bethe lattice (<i>12 pages</i>)	022117
Thomas P. Handford, Francisco J. Pérez-Reche, and Sergei N. Taraskin	
Optimal sensor selection for noisy binary detection in stochastic pooling networks (<i>9 pages</i>)	022118
Mark D. McDonnell, Feng Li, P.-O. Amblard, and Alex J. Grant	
Sampling fractional Brownian motion in presence of absorption: A Markov chain method (<i>8 pages</i>)	022119
Alexander K. Hartmann, Satya N. Majumdar, and Alberto Rosso	
Diffusion of small particles in a solid polymeric medium (<i>8 pages</i>)	022120
F. Camboni, A. Koher, and I. M. Sokolov	
Nonequilibrium density matrix for quantum transport: Hershfield approach as a McLennan-Zubarev form of the statistical operator (<i>6 pages</i>)	022121
H. Ness	
Renormalization group calculations for wetting transitions of infinite order and continuously varying order: Local interface Hamiltonian approach (<i>12 pages</i>)	022122
J. O. Indekeu, K. Koga, H. Hooyberghs, and A. O. Parry	
Diverging fluctuations in a spatial five-species cyclic dominance game (<i>8 pages</i>)	022123
Jeromos Vukov, Attila Szolnoki, and György Szabó	
Efficiency of harvesting energy from colored noise by linear oscillators (<i>6 pages</i>)	022124
Vicenç Méndez, Daniel Campos, and Werner Horsthemke	
Particle dynamics in two-dimensional random-energy landscapes: Experiments and simulations (<i>11 pages</i>)	022125
Florian Evers, Christoph Zunke, Richard D. L. Hanes, Jörg Bewerunge, Imad Ladadwa, Andreas Heuer, and Stefan U. Egelhaaf	
Random-matrix-theory approach to mesoscopic fluctuations of heat current (<i>5 pages</i>)	022126
Martin Schmidt, Tsampikos Kottos, and Boris Shapiro	
Dynamics of an electric dipole moment in a stochastic electric field (<i>7 pages</i>)	022127
Y. B. Band	
Normal dynamic scaling in the class of the nonlinear molecular-beam-epitaxy equation (<i>7 pages</i>)	022128
F. D. A. Aarão Reis	
Single-particle fluctuations and directional correlations in driven hard-sphere glasses (<i>9 pages</i>)	022129
Suvendu Mandal, Vijaykumar Chikkadi, Bernard Nienhuis, Dierk Raabe, Peter Schall, and Fathollah Varnik	
Random matrix ensemble with random two-body interactions in the presence of a mean field for spin-one boson systems (<i>12 pages</i>)	022130
H. N. Deota, N. D. Chavda, V. K. B. Kota, V. Potbhare, and Manan Vyas	
Evolution equation for tagged-particle density and correlations in single-file diffusion (<i>7 pages</i>)	022131
Gonzalo Suárez, Miguel Hoyuelos, and Héctor O. Martín	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 88, NUMBER 2

AUGUST 2013

Bose-Einstein condensation of light: General theory (20 pages)	022132
Denis Nikolaevich Sob'yanin	
Phase diagram of a cyclic predator-prey model with neutral-pair exchange (10 pages)	022133
Nara C. Guisoni, Ernesto S. Loscar, and Mauricio Girardi	
Force fluctuations in stretching a tethered polymer (5 pages)	022134
Anoop Varghese, Satyavani Vemparala, and R. Rajesh	
Renormalization group flow of hexatic membranes (5 pages)	022135
Alessandro Codello and Omar Zanusso	
Anomalous diffusion in the evolution of soccer championship scores: Real data, mean-field analysis, and an agent-based model (8 pages)	022136
Roberto da Silva, Mendeli H. Vainstein, Sebastián Gonçalves, and Felipe S. F. Paula	
From local force-flux relationships to internal dissipations and their impact on heat engine performance: The illustrative case of a thermoelectric generator (10 pages)	022137
Y. Apertet, H. Ouerdane, C. Goupil, and Ph. Lecoeur	
Anomalous velocity distributions in active Brownian suspensions (5 pages)	022138
Andrea Fiege, Benjamin Vollmayr-Lee, and Annette Zippelius	
Critical behavior of the ideal-gas Bose-Einstein condensation in the Apollonian network (7 pages)	022139
I. N. de Oliveira, T. B. dos Santos, F. A. B. F. de Moura, M. L. Lyra, and M. Serva	
Continuum percolation of overlapping disks with a distribution of radii having a power-law tail (7 pages)	022140
V. Sasidevan	
Helices in the wake of precipitation fronts (6 pages)	022141
Shibi Thomas, István Lagzi, Ferenc Molnár, Jr., and Zoltán Rácz	
Variational principle for fractional kinetics and the Lévy Ansatz (4 pages)	022142
Sumiyoshi Abe	
Nonequilibrium work by charge control in a Josephson junction (8 pages)	022143
Su Do Yi, Beom Jun Kim, and Juyeon Yi	
Nonexistence of equilibrium states at absolute negative temperatures (7 pages)	022144
Víctor Romero-Rochín	
Statistics of superior records (7 pages)	022145
E. Ben-Naim and P. L. Krapivsky	
Fluctuation theorem for hidden entropy production (5 pages)	022147
Kyogo Kawaguchi and Yohei Nakayama	
Quasiparticle parametrization of mean fields, Galilei invariance, and universal conserving response functions (22 pages)	022148
K. Morawetz	
Dynamics of multiphase systems with complex microstructure. I. Development of the governing equations through nonequilibrium thermodynamics (13 pages)	022149
Leonard M. C. Sagis and Hans Christian Öttinger	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 88, NUMBER 2

AUGUST 2013

Dynamics of multiphase systems with complex microstructure. II. Particle-stabilized interfaces (<i>9 pages</i>)	022150
Leonard M. C. Sagis	
Brownian motion of a harmonic oscillator in a noninertial reference frame (<i>9 pages</i>)	022151
J. I. Jiménez-Aquino and M. Romero-Bastida	
Opinion dynamics model with weighted influence: Exit probability and dynamics (<i>6 pages</i>)	022152
Soham Biswas, Suman Sinha, and Parongama Sen	
Group superballistic diffusion: Bimodal velocity inducing coexistence of two states in a corrugated plane (<i>6 pages</i>)	022153
Jing-Dong Bao and Jian Liu	
Fractional fluctuation effects on the light scattered by a viscoelastic suspension (<i>13 pages</i>)	022154
R. F. Rodríguez, J. Fujioka, and E. Salinas-Rodríguez	
Granular Materials	
Intrinsic creep of a granular column subjected to temperature changes (<i>7 pages</i>)	022201
Baptiste Blanc and Jean-Christophe Gémard	
Long-range interactions in randomly driven granular fluids (<i>8 pages</i>)	022202
M. Reza Shaeabani, Jalal Sarabadani, and Dietrich E. Wolf	
Low-velocity impact cratering experiments in a wet sand target (<i>10 pages</i>)	022203
Haruna Takita and Ikuro Sumita	
Local stresses in the Janssen granular column (<i>9 pages</i>)	022204
Thomas Cambau, Jérémy Hure, and Joël Marthelot	
Disordered strictly jammed binary sphere packings attain an anomalously large range of densities (<i>14 pages</i>)	022205
Adam B. Hopkins, Frank H. Stillinger, and Salvatore Torquato	
Colloids and Complex Fluids	
Stable and metastable hard-sphere crystals in fundamental measure theory (<i>9 pages</i>)	022301
M. H. Yamani and M. Oettel	
Lattice-gas Poisson-Boltzmann approach for sterically asymmetric electrolytes (<i>5 pages</i>)	022302
Marko Popović and Antonio Šiber	
Duration of bubble rearrangements in a coarsening foam probed by time-resolved diffusing-wave spectroscopy: Impact of interfacial rigidity (<i>14 pages</i>)	022303
Marie Le Merrer, Sylvie Cohen-Addad, and Reinhard Höhler	
Kinetics of DNA-coated sticky particles (<i>8 pages</i>)	022304
Kun-Ta Wu, Lang Feng, Ruojie Sha, Rémi Dreyfus, Alexander Y. Grosberg, Nadrian C. Seeman, and Paul M. Chaikin	
Free-energy functionals of the electrostatic potential for Poisson-Boltzmann theory (<i>9 pages</i>)	022305
Vikram Jadhao, Francisco J. Solis, and Monica Olvera de la Cruz	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 88, NUMBER 2

AUGUST 2013

Effective electrostatic interactions in mixtures of charged colloids (<i>9 pages</i>)	022306
Jun Kyung Chung and Alan R. Denton	
Orientational ordering of colloidal dispersions by application of time-dependent external forces (<i>15 pages</i>)	022307
Brian Moths and T. A. Witten	
Fluctuating mobility generation and transport in glasses (<i>5 pages</i>)	022308
Apiwat Wisitsorasak and Peter G. Wolynes	
Attractive interaction and bridging transition between neutral colloidal particles due to preferential adsorption in a near-critical binary mixture (<i>15 pages</i>)	022309
Ryuichi Okamoto and Akira Onuki	
Yield-strain and shear-band direction in amorphous solids under two-dimensional uniaxial loading (<i>12 pages</i>)	022310
Ashwin J., Oleg Gendelman, Itamar Procaccia, and Carmel Shor	
Capturing self-propelled particles in a moving microwedge (<i>9 pages</i>)	022311
A. Kaiser, K. Popowa, H. H. Wensink, and H. Löwen	
Overlap fluctuations in glass-forming liquids (<i>5 pages</i>)	022313
Ludovic Berthier	
Distribution of local relaxation events in an aging three-dimensional glass: Spatiotemporal correlation and dynamical heterogeneity (<i>11 pages</i>)	022314
Anton Smessaert and Jörg Rottler	
Phonons in two-dimensional soft colloidal crystals (<i>7 pages</i>)	022315
Ke Chen, Tim Still, Samuel Schoenholz, Kevin B. Aptowicz, Michael Schindler, A. C. Maggs, Andrea J. Liu, and A. G. Yodh	
Dynamics of nanoconfined water under pressure (<i>6 pages</i>)	022316
S. O. Diallo, M. Jazdzewska, J. C. Palmer, E. Mamontov, K. E. Gubbins, and M. Śliwińska-Bartkowiak	
Translational and rotational dynamics of colloidal particles in suspension: Effect of shear (<i>16 pages</i>)	022317
M. Hernández-Contreras	
Films, Interfaces, and Crystal Growth	
Microbranching in mode-I fracture in a randomly perturbed lattice (<i>11 pages</i>)	022401
Shay I. Heizler, David A. Kessler, and Yonatan S. Elbaz	
Long-wave model for strongly anisotropic growth of a crystal step (<i>8 pages</i>)	022402
Mikhail Khenner	
Desorption-induced structural changes of metal/Si(111) surfaces: Kinetic Monte Carlo simulations (<i>5 pages</i>)	022403
Pavel Kocán, Pavel Sobotík, and Ivan Ošt'ádal	
Linear stability analysis of a horizontal phase boundary separating two miscible liquids (<i>15 pages</i>)	022404
Abdesselem Kheniene and Anatoliy Vorobev	
Anomalous fast kinetics of lipid monolayer buckling (<i>6 pages</i>)	022405
Naomi Oppenheimer, Haim Diamant, and Thomas A. Witten	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 88, NUMBER 2

AUGUST 2013

Interface kinetics in phase-field models: Isothermal transformations in binary alloys and step dynamics in molecular-beam epitaxy (<i>14 pages</i>)	022406
G. Boussinot and Efim A. Brener	

Anharmonicity, solvation forces, and resolution in atomic force microscopy at the solid-liquid interface (<i>6 pages</i>)	022407
Kislon Voïtchovsky	

Liquid Crystals

Transitions through critical temperatures in nematic liquid crystals (<i>8 pages</i>)	022501
Apala Majumdar, John Ockendon, Peter Howell, and Elena Surovyatkina	

Shape and chirality transitions in off-axis twist nematic elastomer ribbons (<i>8 pages</i>)	022502
Yoshiki Sawa, Kenji Urayama, Toshikazu Takigawa, Vianney Gimenez-Pinto, Badel L. Mbanga, Fangfu Ye, Jonathan V. Selinger, and Robin L. B. Selinger	

Chemically induced twist-bend nematic liquid crystals, liquid crystal dimers, and negative elastic constants (<i>8 pages</i>)	022503
K. Adlem, M. Čopič, G. R. Luckhurst, A. Mertelj, O. Parri, R. M. Richardson, B. D. Snow, B. A. Timimi, R. P. Tuffin, and D. Wilkes	

Positron annihilation studies of 4- <i>n</i> -butyl-4'-isothiocyanato-1,1'-biphenyl (<i>8 pages</i>)	022504
E. Dryzek, E. Juszyńska, R. Zaleski, B. Jasińska, M. Gorgol, and M. Massalska-Arodź	

Field-induced director dynamics in confined nematic liquid crystals imposed by a strong orthogonal electric field (<i>8 pages</i>)	022505
A. A. Vakulenko and A. V. Zakharov	

Dynamic light scattering and viscosity measurements in a ternary and quaternary discotic lyotropic nematic liquid crystal: Tuning the backflow with salt (<i>10 pages</i>)	022506
C. L. S. Risi, A. M. Figueiredo Neto, E. Akpinar, and M. B. Lacerda Santos	

Polymers

Deviations of the glass transition temperature in amorphous conjugated polymer thin films (<i>5 pages</i>)	022601
Dan Liu, Rodrigo Osuna Orozco, and Tao Wang	

Thermomechanical properties and deformation of coarse-grained models of hard-soft block copolymers (<i>10 pages</i>)	022602
Zhiwei Cui and L. Catherine Brinson	

PART B

Biological Physics

DNA-binding-protein inhomogeneity in <i>E. coli</i> modeled as biphasic facilitated diffusion (<i>6 pages</i>)	022701
Thomas E. Kuhlman and Edward C. Cox	

Entrainment range of nonidentical circadian oscillators by a light-dark cycle (<i>7 pages</i>)	022702
Changgui Gu, Jinshan Xu, Zonghua Liu, and Jos H. T. Rohling	

Role of directional fidelity in multiple aspects of extreme performance of the F ₁ -ATPase motor (<i>8 pages</i>)	022703
Ruizheng Hou and Zhisong Wang	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 88, NUMBER 2

AUGUST 2013

Transition from an antiphase error-correction mode to a synchronization mode in mutual hand tracking (7 pages)	022704
Yoshikatsu Hayashi and Yasuji Sawada	
Quantifying spatial structure in experimental observations and agent-based simulations using pair-correlation functions (10 pages)	022705
Benjamin J. Binder and Matthew J. Simpson	
Multiplectoneme phase of double-stranded DNA under torsion (20 pages)	022706
Marc Emanuel, Giovanni Lanzani, and Helmut Schiessel	
Registration and analysis of the shape fluctuations of nearly spherical lipid vesicles (9 pages)	022707
Julia Genova, Victoria Vitkova, and Isak Bivas	
Time-dependent information transmission in a model regulatory circuit (12 pages)	022708
F. Mancini, C. H. Wiggins, M. Marsili, and A. M. Walczak	
Generalized cable theory for neurons in complex and heterogeneous media (15 pages)	022709
Claude Bédard and Alain Destexhe	
Exact partition function zeros of the Wako-Saitô-Muñoz-Eaton β hairpin model (6 pages)	022710
Julian Lee (이주련)	
Energetics of the single-headed kinesin KIF1A (18 pages)	022711
Ryo Kanada and Kazuo Sasaki	
Protein translocation in narrow pores: Inferring bottlenecks from native structure topology (8 pages)	022712
Marco Bacci, Mauro Chinappi, Carlo Massimo Casciola, and Fabio Cecconi	
Multiscale codes in the nervous system: The problem of noise correlations and the ambiguity of periodic scales (10 pages)	022713
Alexander Mathis, Andreas V. M. Herz, and Martin B. Stemmler	
Transport dynamics of molecular motors that switch between an active and inactive state (10 pages)	022714
I. Pinkoviezky and N. S. Gov	
Mechanism for synchronized motion between two humans in mutual tapping experiments: Transition from alternative mode to synchronization mode (10 pages)	022715
Yoshikatsu Hayashi and Toshiyuki Kondo	
Filter-based multiscale entropy analysis of complex physiological time series (13 pages)	022716
Yuesheng Xu and Liang Zhao	
Local mechanical response in semiflexible polymer networks subjected to an axisymmetric prestress (10 pages)	022717
David A. Head and Daisuke Mizuno	
Linking actin networks and cell membrane via a reaction-diffusion-elastic description of nonlinear filopodia initiation (10 pages)	022718
Eyal Ben Isaac, Uri Manor, Bechara Kachar, Arik Yochelis, and Nir S. Gov	
Effect of undulations on spontaneous braid formation (14 pages)	022719
Dominic Lee	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 88, NUMBER 2

AUGUST 2013

Automatic sorting of point pattern sets using Minkowski functionals (<i>8 pages</i>)	022720
Joshua Parker, Eilon Sherman, Matthias van de Raa, Devaraj van der Meer, Lawrence E. Samelson, and Wolfgang Losert	
Networks and Interdisciplinary Physics	
Effect of the interconnected network structure on the epidemic threshold (<i>13 pages</i>)	022801
Huijuan Wang, Qian Li, Gregorio D'Agostino, Shlomo Havlin, H. Eugene Stanley, and Piet Van Mieghem	
Random walk with priorities in communicationlike networks (<i>11 pages</i>)	022803
Nikolaos Bastas, Michalis Maragakis, Panos Argyrakis, Daniel ben-Avraham, Shlomo Havlin, and Shai Carmi	
Impact of compatibility on the organization of mutualistic networks (<i>13 pages</i>)	022804
Seong Eun Maeng, Jae Woo Lee, and Deok-Sun Lee	
Motifs in triadic random graphs based on Steiner triple systems (<i>11 pages</i>)	022805
Marco Winkler and Jörg Reichardt	
Replicator dynamics with turnover of players (<i>9 pages</i>)	022806
Jeppe Juul, Ardeshir Kianercy, Sebastian Bernhardsson, and Simone Pigolotti	
Costly bilingualism model in a population with one zealot (<i>5 pages</i>)	022807
Hyunsuk Hong and Seung-Woo Son	
Duality between equilibrium and growing networks (<i>12 pages</i>)	022808
Dmitri Krioukov and Massimo Ostilli	
Effect of overpasses in the Biham-Middleton-Levine traffic flow model with random and parallel update rule (<i>12 pages</i>)	022809
Zhong-Jun Ding, Rui Jiang, Zi-You Gao, Bing-Hong Wang, and Jiancheng Long	
Enhancing community integrity of networks against multilevel targeted attacks (<i>10 pages</i>)	022810
Lijia Ma, Maoguo Gong, Qing Cai, and Licheng Jiao	
Continuous-time random walks on networks with vertex- and time-dependent forcing (<i>9 pages</i>)	022811
C. N. Angstmann, I. C. Donnelly, B. I. Henry, and T. A. M. Langlands	
Gravity versus radiation models: On the importance of scale and heterogeneity in commuting flows (<i>8 pages</i>)	022812
A. Paolo Masucci, Joan Serras, Anders Johansson, and Michael Batty	
Slow epidemic extinction in populations with heterogeneous infection rates (<i>5 pages</i>)	022813
C. Buono, F. Vazquez, P. A. Macri, and L. A. Braunstein	
Language change in a multiple group society (<i>9 pages</i>)	022814
Cristina-Maria Pop and Erwin Frey	
Decentralized routing on spatial networks with stochastic edge weights (<i>9 pages</i>)	022815
Till Hoffmann, Renaud Lambiotte, and Mason A. Porter	
Dynamical influence processes on networks: General theory and applications to social contagion (<i>11 pages</i>)	022816
Kameron Decker Harris, Christopher M. Danforth, and Peter Sheridan Dodds	
Degree-based attacks are not optimal for desynchronization in general networks (<i>6 pages</i>)	022817
Ping Li, Xian Sun, Kai Zhang, Jie Zhang, and Michael Small	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 88, NUMBER 2

AUGUST 2013

Spontaneous scale-free structure in adaptive networks with synchronously dynamical linking (6 pages)	022818
Wu-Jie Yuan, Jian-Fang Zhou, Qun Li, De-Bao Chen, and Zhen Wang	
Nonlinear Dynamics and Chaos	
Nonlinear stability of traffic models and the use of Lyapunov vectors for estimating the traffic state (9 pages)	022901
Luigi Palatella, Anna Trevisan, and Sandro Rambaldi	
Chaotic scattering on individual quantum graphs (12 pages)	022902
Z. Pluhař and H. A. Weidenmüller	
Intermittent explosions of dissipative solitons and noise-induced crisis (8 pages)	022903
Jaime Cisternas and Orazio Descalzi	
Resonance energy transport and exchange in oscillator arrays (10 pages)	022904
Agnessa Kovaleva and Leonid I. Manevitch	
Wave competitions around interfaces of two oscillatory media (8 pages)	022905
Xiaohua Cui, Xiaoqing Huang, Fagen Xie, and Gang Hu	
Persistence of uphill anomalous transport in inhomogeneous media (6 pages)	022906
C. Mulhern	
Chaos and ergodicity of two hard disks within a circular billiard (16 pages)	022907
Shin-ichi Sawada and Tooru Taniguchi	
Synchronization of a Josephson junction array in terms of global variables (5 pages)	022908
Vladimir Vlasov and Arkady Pikovsky	
Correlation properties of exactly solvable chaotic oscillators (9 pages)	022909
Jonathan N. Blakely and Ned J. Corron	
Bistability and chaos at low levels of quanta (9 pages)	022910
T. V. Gevorgyan, A. R. Shahinyan, Lock Yue Chew, and G. Yu. Kryuchkyan	
Information directionality in coupled time series using transcripts (13 pages)	022911
Roberto Monetti, Wolfram Bunk, Thomas Aschenbrenner, Stephan Springer, and José M. Amigó	
Nonlinear localized modes in two-dimensional electrical lattices (6 pages)	022912
L. Q. English, F. Palmero, J. F. Stormes, J. Cuevas, R. Carretero-González, and P. G. Kevrekidis	
Fractal dynamics in chaotic quantum transport (5 pages)	022913
V. Kotimäki, E. Räsänen, H. Hennig, and E. J. Heller	
Dynamics of self-organized driven particles with competing range interaction (7 pages)	022914
H. J. Zhao, V. R. Misko, and F. M. Peeters	
Radial sine-Gordon kinks as sources of fast breathers (9 pages)	022915
J.-G. Caputo and M. P. Soerensen	
Semiclassical wave functions for open quantum billiards (13 pages)	022916
Fabian Lackner, Iva Březinová, Joachim Burgdörfer, and Florian Libisch	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 88, NUMBER 2

AUGUST 2013

Double-discrete solitons in fishnet arrays of optical fibers (<i>7 pages</i>)	022917
Kestutis Staliunas and Boris Malomed	
Akhmediev breathers, Ma solitons, and general breathers from rogue waves: A case study in the Manakov system (<i>11 pages</i>)	022918
N. Vishnu Priya, M. Senthilvelan, and M. Lakshmanan	
Solvable model for solitons pinned to a parity-time-symmetric dipole (<i>11 pages</i>)	022919
Thawatchai Mayteevarunyoo, Boris A. Malomed, and Athikom Reeksabutr	
Attractive and repulsive contributions of localized excitability inhomogeneities and elimination of spiral waves in excitable media (<i>9 pages</i>)	022920
Guoyong Yuan, Huan Zhang, Aiguo Xu, and Guangrui Wang	
Moving Bragg grating solitons in a cubic-quintic nonlinear medium with dispersive reflectivity (<i>9 pages</i>)	022921
Sahan Dasanayaka and Javid Atai	
Barycentric fixed-mass method for multifractal analysis (<i>9 pages</i>)	022922
Y. Kamer, G. Ouillon, and D. Sornette	
Control of excitable pulses in an injection-locked semiconductor laser (<i>5 pages</i>)	022923
M. Turconi, B. Garbin, M. Feyereisen, M. Giudici, and S. Barland	
Fluid Dynamics	
Finger competition in lifting Hele-Shaw flows with a yield stress fluid (<i>7 pages</i>)	023001
João V. Fontana and José A. Miranda	
Simple model of the Rayleigh-Taylor instability, collapse, and structural elements (<i>11 pages</i>)	023002
V. P. Goncharov and V. I. Pavlov	
Asymptotic and numerical analysis of electrohydrodynamic flows of dielectric liquid (<i>15 pages</i>)	023003
Y. K. Suh, K. H. Baek, and D. S. Cho	
Effective slip-length tensor for a flow over weakly slipping stripes (<i>9 pages</i>)	023004
Evgeny S. Asmolov, Jiajia Zhou, Friederike Schmid, and Olga I. Vinogradova	
Instability of streaks in pipe flow of shear-thinning fluids (<i>15 pages</i>)	023005
S. N. López Carranza, M. Jenny, and C. Nouar	
Ultrasound-induced acoustophoretic motion of microparticles in three dimensions (<i>12 pages</i>)	023006
P. B. Muller, M. Rossi, Á. G. Marín, R. Barnkob, P. Augustsson, T. Laurell, C. J. Kähler, and H. Bruus	
Dynamics of squeezing fluids: Clapping wet hands (<i>6 pages</i>)	023007
Sean Gart, Brian Chang, Brice Slama, Randy Goodnight, Soong Ho Um, and Sunghwan Jung	
Three-sphere magnetic swimmer in a shear flow (<i>7 pages</i>)	023008
Maryam Taghiloo and MirFaez Miri	
Vibrations of cylindrical objects obstructing a Poiseuille-type flow (<i>9 pages</i>)	023009
Renjie Jiang, Jianzhong Lin, and Zhongli Chen	
Transition to chaos of natural convection between two infinite differentially heated vertical plates (<i>18 pages</i>)	023010
Zhenlan Gao, Anne Sargent, Berengere Podvin, Shihe Xin, Patrick Le Quéré, and Laurette S. Tuckerman	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 88, NUMBER 2

AUGUST 2013

Influence of granular packing on porosity and tortuosity (<i>6 pages</i>)	023011
Iuri Freytag and Waldir L. Roque	
Synchronization of rigid microrotors by time-dependent hydrodynamic interactions (<i>5 pages</i>)	023012
Mario Theers and Roland G. Winkler	
Thick drops on a slowly oscillating substrate (<i>9 pages</i>)	023013
E. S. Benilov and C. P. Cummins	
Formation of curvature singularities on the interface between dielectric liquids in a strong vertical electric field (<i>10 pages</i>)	023014
Evgeny A. Kochurin, Nikolay M. Zubarev, and Olga V. Zubareva	
Substrate constraint modifies the Rayleigh spectrum of vibrating sessile drops (<i>17 pages</i>)	023015
Chun-Ti Chang, Joshua B. Bostwick, Paul H. Steen, and Susan Daniel	
Dispersive hydrodynamics in viscous fluid conduits (<i>10 pages</i>)	023016
N. K. Lowman and M. A. Hoefer	
Oscillating and star-shaped drops levitated by an airflow (<i>11 pages</i>)	023017
Wilco Bouwhuis, Koen G. Winkels, Ivo R. Peters, Philippe Brunet, Devaraj van der Meer, and Jacco H. Snoeijer	
Anisotropy of flow in stochastically generated porous media (<i>5 pages</i>)	023018
Maciej Matyka, Zbigniew Koza, Jarosław Gołembiewski, Marcin Kostur, and Michał Januszewski	
Mechanism of vibration-induced repulsion force on a particle in a viscous fluid cell (<i>9 pages</i>)	023019
Mehrrad Saadatmand and Masahiro Kawaji	
Interaction of bubbles in an inviscid and low-viscosity shear flow (<i>15 pages</i>)	023021
Jai Prakash, Olga M. Lavrenteva, and Avinoam Nir	
Electric-field-driven contact-line dynamics of two immiscible fluids over chemically patterned surfaces in narrow confinements (<i>13 pages</i>)	023022
Pranab Kumar Mondal, Uddipta Ghosh, Aditya Bandopadhyay, Debabrata DasGupta, and Suman Chakraborty	
Mixing and internal dynamics of droplets impacting and coalescing on a solid surface (<i>11 pages</i>)	023023
J. R. Castrejón-Pita, K. J. Kubiak, A. A. Castrejón-Pita, M. C. T. Wilson, and I. M. Hutchings	
Intermittent flow in yield-stress fluids slows down chaotic mixing (<i>4 pages</i>)	023024
D. M. Wendell, F. Pigeonneau, E. Gouillart, and P. Jop	
Nonlinear pattern formation in thin liquid films under external vibrations (<i>5 pages</i>)	023025
Michael Bestehorn, Qi Han, and Alexander Oron	
Rayleigh-Taylor stability boundary at solid-liquid interfaces (<i>6 pages</i>)	023026
A. R. Piriz, Y. B. Sun, and N. A. Tahir	
Interfacial instability of two superimposed immiscible viscous fluids in a vertical Hele-Shaw cell under horizontal periodic oscillations (<i>8 pages</i>)	023027
Jamila Bouchgl, Saïd Aniss, and Mohamed Souhar	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 88, NUMBER 2

AUGUST 2013

Hydromagnetic thin film flow: Linear stability (<i>11 pages</i>)	023028
Mustapha Amaouche, Hamid Ait Abderrahmane, and Lamia Bourdache	
Interaction between a pair of particles settling in a stratified fluid (<i>10 pages</i>)	023029
A. Doostmohammadi and A. M. Ardekani	
Plasma Physics	
Simulating the dynamics of complex plasmas (<i>11 pages</i>)	023101
M. Schwabe and D. B. Graves	
Nonstationary magnetosonic wave dynamics in plasmas exhibiting collapse (<i>9 pages</i>)	023102
Nikhil Chakrabarti, Chandan Maity, and Hans Schamel	
Re-examining the Cairns-Tsallis model for ion acoustic solitons (<i>8 pages</i>)	023103
G. Williams, I. Kourakis, F. Verheest, and M. A. Hellberg	
Discharging of dust particles in the afterglow of plasma with large dust density (<i>10 pages</i>)	023104
I. B. Denysenko, I. Stefanović, B. Sikimić, J. Winter, and N. A. Azarenkov	
Self-modulation of nonlinear Alfvén waves in a strongly magnetized relativistic electron-positron plasma (<i>8 pages</i>)	023105
Rodrigo A. López, Felipe A. Asenjo, Víctor Muñoz, Abraham C.-L. Chian, and J. A. Valdivia	
Ultrasharp-front laser pulses generated by energetic-electron flux triggering of laser propagation in overdense plasmas (<i>6 pages</i>)	023106
Xiao-Ya Li, Yong Yu, Bai-Fei Shen, Jia-Xiang Wang, Wen-Jun Zhu, Zi-Yu Chen, and Yan Ye	
Kinetic theory of fully degenerate electrons in the long scale limit (<i>5 pages</i>)	023107
Gert Brodin and Martin Stefan	
Stability of three-dimensional dust acoustic waves in a dusty plasma with two opposite polarity dust species including dust size distribution (<i>9 pages</i>)	023108
S. K. El-Labany, W. F. El-Taibany, and E. E. Behery	
Optical signatures of the charge of a dielectric particle in a plasma (<i>9 pages</i>)	023109
R. L. Heinisch, F. X. Bronold, and H. Fehske	
Equilibrium probability distribution of a conductive sphere's floating charge in a collisionless, drifting Maxwellian plasma (<i>10 pages</i>)	023110
Drew M. Thomas and Michael Coppins	
Classical Physics	
Coherent transmission of an ultrasonic shock wave through a multiple scattering medium (<i>5 pages</i>)	023201
Nicolas Viard, Bruno Giammarinaro, Arnaud Derode, and Christophe Barrière	
Twisted rogue-wave pairs in the Sasa-Satsuma equation (<i>5 pages</i>)	023202
Shihua Chen	
Effects of parity-time symmetry in nonlinear Klein-Gordon models and their stationary kinks (<i>8 pages</i>)	023203
A. Demirkaya, D. J. Frantzeskakis, P. G. Kevrekidis, A. Saxena, and A. Stefanov	
Parameter retrieval of chiral metamaterials based on the state-space approach (<i>8 pages</i>)	023204
Davoud Zarifi, Mohammad Soleimani, and Ali Abdolali	

(Continued)

Computational Physics

Dynamic implicit-solvent coarse-grained models of lipid bilayer membranes: Fluctuating hydrodynamics thermostat (<i>5 pages</i>)	023301
Yaohong Wang, Jon Karl Sigurdsson, Erik Brandt, and Paul J. Atzberger	
Determination of bed elevation in the enhanced lattice Boltzmann method for the shallow-water equations (<i>6 pages</i>)	023302
Jian Guo Zhou and Haifei Liu	
Dynamics of the sub-Ohmic spin-boson model: A comparison of three numerical approaches (<i>10 pages</i>)	023303
Yao Yao, Liwei Duan, Zhiguo Lü, Chang-Qin Wu, and Yang Zhao	
Isotropic model for cluster growth on a regular lattice (<i>7 pages</i>)	023304
Christian A. Yates and Ruth E. Baker	
Linking hydrophobicity and hydrodynamics by the hybrid fluctuating hydrodynamics and molecular dynamics methodologies (<i>9 pages</i>)	023305
Nikolaos K. Voulgarakis, Barry Z. Shang, and Jhih-Wei Chu	
Phase-field crystal model with a vapor phase (<i>14 pages</i>)	023306
Edwin J. Schwalbach, James A. Warren, Kuo-An Wu, and Peter W. Voorhees	

BRIEF REPORTS

Statistical Physics

No-go theorem for ergodicity and an Einstein relation (<i>5 pages</i>)	024101
D. Froemberg and E. Barkai	
Nonstandard scaling law of fluctuations in finite-size systems of globally coupled oscillators (<i>5 pages</i>)	024102
Isao Nishikawa, Gouhei Tanaka, and Kazuyuki Aihara	

Liquid Crystals

Lehmann effects and rotatoelectricity in liquid crystalline systems made of achiral molecules (<i>5 pages</i>)	024501
Helmut R. Brand, Harald Pleiner, and Daniel Svenšek	

Biological Physics

Critical avalanches and subsampling in map-based neural networks coupled with noisy synapses (<i>5 pages</i>)	024701
M. Girardi-Schappo, O. Kinouchi, and M. H. R. Tragtenberg	

Networks and Interdisciplinary Physics

Generalized Achlioptas process for the delay of criticality in the percolation process (<i>4 pages</i>)	024801
Paraskevas Giazitzidis and Panos Argyrakis	
Engagement in the electoral processes: Scaling laws and the role of political positions (<i>5 pages</i>)	024802
M. C. Mantovani, H. V. Ribeiro, E. K. Lenzi, S. Picoli, Jr., and R. S. Mendes	

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 88, NUMBER 2

AUGUST 2013

Nonlinear Dynamics and Chaos

- Limiting phase trajectories and emergence of autoresonance in nonlinear oscillators (*6 pages*) 024901
 Agnessa Kovaleva and Leonid I. Manevitch
- Large-amplitude oscillations in the rectangular Fermi accelerator (*5 pages*) 024902
 Kushal Shah

Classical Physics

- Bright solitons from the nonpolynomial Schrödinger equation with inhomogeneous defocusing nonlinearities (*5 pages*) 025201
 W. B. Cardoso, J. Zeng, A. T. Avelar, D. Bazeia, and B. A. Malomed

COMMENTS

- Comment on “Subgraph centrality in complex networks” (*4 pages*) 026801
 Dragan Stevanović
- Comment on “Proposal of a critical test of the Navier-Stokes-Fourier paradigm for compressible fluid continua” (*2 pages*) 027001
 B. U. Felderhof

ERRATA

- Erratum: Wavelength selection in Hele-Shaw flows: A maximum-amplitude criterion [Phys. Rev. E **88**, 013016 (2013)] (*1 page*) 029901(E)
 Eduardo O. Dias and José A. Miranda
- Publisher’s Note: Spectroscopic study of plasma evolution in runaway nanosecond atmospheric-pressure He discharges [Phys. Rev. E **88**, 013107 (2013)] (*1 page*) 029902(E)
 S. Yatom, E. Stambulchik, V. Vekselman, and Ya. E. Krasik
- Erratum: General bounce-back scheme for concentration boundary condition in the lattice-Boltzmann method [Phys. Rev. E **85**, 016701 (2012)] (*1 page*) 029903(E)
 Ting Zhang, Baochang Shi, Zhaoli Guo, Zhenhua Chai, and Jianhua Lu