

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 107, NUMBER 5

MAY 2023

Deep learning method of stochastic reconstruction of three-dimensional digital cores from a two-dimensional image (20 pages) 055309

Juan Li, Qizhi Teng, Ningning Zhang, Honggang Chen, and Xiaohai He

COMMENTS

Comment on “Harvesting information to control nonequilibrium states of active matter” (6 pages) 056601

Antoine Bérut

Reply to “Comment on ‘Harvesting information to control nonequilibrium states of active matter’ ” (2 pages) 056602

Rémi Goerlich, Luís Barbosa Pires, Giovanni Manfredi, Paul-Antoine Hervieux, and Cyriaque Genet

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 107, NUMBER 5

MAY 2023

Ring structural transitions in strongly coupled dusty plasmas (<i>12 pages</i>)	055208
Vikram Dharodi and Evdokiya Kostadinova	
Second-harmonic electron-cyclotron resonance heating: A possible impact from mode coupling near the resonance (<i>11 pages</i>)	055209
Maxim Tereshchenko	
Spin Hall effect of radiofrequency waves in magnetized plasmas (<i>7 pages</i>)	055210
Yichen Fu, I. Y. Dodin, and Hong Qin	
Observation of fast sound in two-dimensional dusty plasma liquids (<i>8 pages</i>)	055211
Zhenyu Ge, Dong Huang, Shaoyu Lu, Chen Liang, Matteo Baggioli, and Yan Feng	
Fundamental solution of diffusion equation for Kappa gas: Diffusion length for suprathermal electrons in solar wind (<i>8 pages</i>)	055212
M. H. Benetti, F. E. M. Silveira, and I. L. Caldas	
Charged particle beam transport in a flying focus pulse with orbital angular momentum (<i>15 pages</i>)	055213
Martin Formanek, John P. Palastro, Marija Vranic, Dillon Ramsey, and Antonino Di Piazza	
Structure formation by electrostatic interactions in strongly coupled medium (<i>12 pages</i>)	055214
Mamta Yadav, Priya Deshwal, Srimanta Maity, and Amita Das	
Computational Physics	
Flexible class of exact Hubbard-Stratonovich transformations (<i>8 pages</i>)	055301
Seher Karakuzu, Benjamin Cohen-Stead, Cristian D. Batista, Steven Johnston, and Kipton Barros	
Stable recursive auxiliary field quantum Monte Carlo algorithm in the canonical ensemble: Applications to thermometry and the Hubbard model (<i>14 pages</i>)	055302
Tong Shen, Hatem Barghathi, Jiangyong Yu, Adrian Del Maestro, and Brenda M. Rubenstein	
Particle-based mesoscopic model for phase separation in a binary fluid mixture (<i>10 pages</i>)	055303
Surabhi Jaiswal, Soudamini Sahoo, and Snigdha Thakur	
Method and computer library for calculation of the Boltzmann collision integrals on discrete momentum lattice (<i>12 pages</i>)	055304
I. O. Kuznetsov and P. F. Kartsev	
Fourth-order multiple-relaxation-time lattice Boltzmann model and equivalent finite-difference scheme for one-dimensional convection-diffusion equations (<i>17 pages</i>)	055305
Ying Chen, Zhenhua Chai, and Baochang Shi	
General mechanisms for stabilizing weakly compressible models (<i>19 pages</i>)	055306
Jinhua Lu and Nikolaus A. Adams	
Midpoint projection algorithm for stochastic differential equations on manifolds (<i>18 pages</i>)	055307
Ria Rushin Joseph, Jesse van Rhijn, and Peter D. Drummond	
Thermodynamics of fermions at any temperature based on parametrized partition function (<i>8 pages</i>)	055308
Yunuo Xiong and Hongwei Xiong	

(Continued)

Fluid Dynamics

Theory of the force of friction acting on water chains flowing through carbon nanotubes (<i>12 pages</i>)	055101
J. B. Sokoloff and A. W. C. Lau	
Delayed Hopf bifurcation and control of a ferrofluid interface via a time-dependent magnetic field (<i>15 pages</i>)	055102
Zongxin Yu and Ivan C. Christov	
Critical conditions for development of a second pair of Dean vortices in curved microfluidic channels (<i>6 pages</i>)	055103
Minyoung Kim and Ali Borhan	
Taylor's swimming sheet in a smectic-A liquid crystal (<i>8 pages</i>)	055104
Harsh Soni	
Optimal policies for Bayesian olfactory search in turbulent flows (<i>19 pages</i>)	055105
R. A. Heinonen, L. Biferale, A. Celani, and M. Vergassola	
Bolgiano-Obukhov spectrum and mixing efficiency in stably stratified turbulence (<i>12 pages</i>)	055106
Shadab Alam, Mahendra K. Verma, and Pranav Joshi	
Flocking turbulence of microswimmers in confined domains (<i>11 pages</i>)	055107
L. Puggioni, G. Boffetta, and S. Musacchio	
Transformation hydrodynamic metamaterials: Rigorous arguments on form invariance and structural design with spatial variance (<i>17 pages</i>)	055108
Gaole Dai and Jun Wang	

Plasma Physics

Experimental study of the mechanism of prepulse current on Z-pinch plasma using Faraday rotation diagnosis (<i>7 pages</i>)	055201
Zhiyuan Jiang, Jian Wu, Ziwei Chen, Wei Wang, Zhenyu Wang, Yuanbo Lu, Yiming Zhao, Huantong Shi, and Xingwen Li	
Magnetosonic waves propagation in a magnetorotating quantum plasma (<i>8 pages</i>)	055202
Yusra A. A. Hager, Mahmood A. H. Khaled, and Mohamed A. Shukri	
Occam's razor on the mechanism of resistive-wall-mode-induced β limits in diverted tokamaks (<i>6 pages</i>)	055203
D. Brunetti, J. P. Graves, C. J. Ham, and S. Saarelma	
Intensity of focused waves near turning points (<i>12 pages</i>)	055204
N. A. Lopez, E. Kur, and D. J. Strozzi	
Helical correction to turbulent magnetic diffusivity (<i>4 pages</i>)	055205
Krzysztof A. Mizerski	
Parameter study of decaying magnetohydrodynamic turbulence (<i>17 pages</i>)	055206
Andres Armua, Arjun Berera, and Jaime Calderón-Figueroa	
Nanoplasma resonance condition in the middle-infrared spectral range (<i>12 pages</i>)	055207
V. Leshchenko, B. Smith, A. Camacho Garibay, P. Agostini, L. F. DiMauro, and L. Fang	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 107, NUMBER 5

MAY 2023

Director anchoring on a simple edge dislocation at the surface of induced smectic- C_A films (18 pages)	054702
Yves Galerne	

Films and Interfaces

Simple rose model of water in constant electric field (14 pages)	054801
Peter Ogrin and Tomaz Urbic	

Granular Materials

Stochastic methods for slip prediction in a sheared granular system (13 pages)	054901
P. Bretz, L. Kondic, and M. Kramar	
Theory of rigidity and numerical analysis of density of states of two-dimensional amorphous solids with dispersed frictional grains in the linear response regime (22 pages)	054902
Daisuke Ishima, Kuniyasu Saitoh, Michio Otsuki, and Hisao Hayakawa	
Local and global measures of the shear moduli of jammed disk packings (16 pages)	054903
Shiyun Zhang, Weiwei Jin, Dong Wang, Ding Xu, Jerry Zhang, Mark D. Shattuck, and Corey S. O'Hern	
Random sequential adsorption of aligned regular polygons and rounded squares: Transition in the kinetics of packing growth (7 pages)	054904
Michał Cieřła, Piotr Kubala, and Aref Abbasi Moud	
Counterflow-induced clustering: Exact results (18 pages)	054905
Amit Kumar Chatterjee and Hisao Hayakawa	
In-depth influence of the top surface fabrication of a bead packing (8 pages)	054906
Luc Oger, Renaud Delannay, and Yves Le Gonidec	

Solid Mechanics

Impact of a pressurized membrane: Coefficient of restitution (7 pages)	055001
Baptiste Darbois Texier and Loïc Tadrist	
Role of composition in fracture behavior of two-phase solids (12 pages)	055002
Subrat Senapati, Anuradha Banerjee, and R. Rajesh	
Geometric rules for the annihilation dynamics of step lines on fracture fronts (8 pages)	055003
Will Steinhardt and Shmuel M. Rubinstein	
Geometric theory of mechanical screening in two-dimensional solids (13 pages)	055004
Noemie S. Livne, Amit Schiller, and Michael Moshe	
Anomalous elasticity and emergent dipole screening in three-dimensional amorphous solids (9 pages)	055005
Harish Charan, Michael Moshe, and Itamar Procaccia	
Theory of transition from brittle to ductile fracture (7 pages)	055006
K. C. Le, H. Jeong, and T. M. Tran	
 Oblique impact of a buckling table-tennis ball on a rigid surface (6 pages)	055007
Théophile Rémond, Vincent Dolique, Renaud G. Rinaldi, and Jean-Christophe Géminard	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 107, NUMBER 5

MAY 2023

Morphological instability of solid tumors in a nutrient-deficient environment (<i>11 pages</i>)	054405
Chien-Han Yen, Yi-Chieh Lai, and Kuo-An Wu	
Effect of internal damping on locomotion in frictional environments (<i>10 pages</i>)	054406
Brian Van Stratum, Jonathan Clark, and Kourosh Shoele	
Role of ephaptic coupling in discordant alternans domain sizes and action potential propagation in the heart (<i>13 pages</i>)	054407
Niels F. Otani, Eileen Figueroa, James Garrison, Michelle Hewson, Laura Muñoz, Flavio H. Fenton, Alain Karma, and Seth H. Weinberg	
 Models of vimentin organization under actin-driven transport (<i>15 pages</i>)	054408
Youngmin Park, Cécile Leduc, Sandrine Etienne-Manneville, and Stéphanie Portet	
Polymers	
Force-induced melting of DNA hairpin: Unfolding pathways and phase diagrams (<i>11 pages</i>)	054501
Sumitra Rudra, Keerti Chauhan, Amit Raj Singh, and Sanjay Kumar	
Colloids, Complex Fluids, and Active Matter	
Inertial active ratchet: Simulation versus theory (<i>9 pages</i>)	054601
M. Muhsin and M. Sahoo	
Single active particle in a harmonic potential: Question about the existence of the Jarzynski relation (<i>7 pages</i>) . . .	054602
Grzegorz Szamel	
Synchronization and alignment of model oscillators based on Quincke rotation (<i>11 pages</i>)	054603
Zhengyan Zhang and Kyle J. M. Bishop	
Elastic response of colloidal smectic liquid crystals: Insights from microscopic theory (<i>16 pages</i>)	054604
H. H. Wensink and E. Grelet	
Nuclear spin relaxation in aqueous paramagnetic ion solutions (<i>21 pages</i>)	054605
David A. Faux, Örs Istók, Arifah A. Rahaman, Peter J. McDonald, Eoin McKiernan, and Dermot F. Brougham	
Stability of interlocked self-propelled dumbbell clusters (<i>10 pages</i>)	054606
Fabian Jan Schwarzendahl, Abraham Maulean-Amieva, C. Patrick Royall, and Hartmut Löwen	
Inertial and geometrical effects of self-propelled elliptical Brownian particles (<i>13 pages</i>)	054607
Federica Montana, Carlo Camporeale, Amilcare Porporato, and Lamberto Rondoni	
Controlling the direction of steady electric fields in liquid using nonantiperiodic potentials (<i>6 pages</i>)	054608
Aref Hashemi, Mehrdad Tahernia, William D. Ristenpart, and Gregory H. Miller	
Liquid Crystals	
Liquid-crystal composites of carbon nanotubes in a magnetic field: Bridging continuum theory and a molecular-statistical approach (<i>16 pages</i>)	054701
Danil A. Petrov	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 107, NUMBER 5

MAY 2023

Relative asymptotic oscillations of the out-of-time-ordered correlator as a quantum chaos indicator (<i>12 pages</i>) . . .	054220
Jakub Novotný and Pavel Stránský	
Quantum pseudointegrable Hamiltonian impact system (<i>9 pages</i>)	054221
Omer Yaniv and Vered Rom-Kedar	
Reconstruction of intermittent time series as a superposition of pulses (<i>23 pages</i>)	054222
Sajidah Ahmed, Odd Erik Garcia, and Audun Theodorsen	

PART B

Networks and Complex Systems

Feasibility and stability in large Lotka Volterra systems with interaction structure (<i>7 pages</i>)	054301
Xiaoyuan Liu, George W. A. Constable, and Jonathan W. Pitchford	
Deterministic and stochastic cooperation transitions in evolutionary games on networks (<i>14 pages</i>)	054302
Nagi Khalil, I. Leyva, J. A. Almendral, and I. Sendiña-Nadal	
Belief propagation on networks with cliques and chordless cycles (<i>13 pages</i>)	054303
Peter Mann and Simon Dobson	
Epidemic control in networks with cliques (<i>14 pages</i>)	054304
L. D. Valdez, L. Vassallo, and L. A. Braunstein	
Hierarchical community structure in networks (<i>22 pages</i>)	054305
Michael T. Schaub, Jiaze Li, and Leto Peel	
Influence maximization: Divide and conquer (<i>12 pages</i>)	054306
Siddharth Patwardhan, Filippo Radicchi, and Santo Fortunato	
Analysis of a continuous-time adaptive voter model (<i>11 pages</i>)	054307
Emmanuel Kravitzch, Yezekael Hayel, Vineeth S. Varma, and Antoine O. Berthet	
Global excitability and network structure in the human brain (<i>13 pages</i>)	054308
Youssef Kora, Salma Salhi, Jörn Davidsen, and Christoph Simon	

Biological Physics

Wrapping dynamics and critical conditions for active nonspherical nanoparticle uptake (<i>8 pages</i>)	054401
Ke Xiao, Rui Ma, and Chen-Xu Wu	
Characterizing the information transmission of inverse stochastic resonance and noise-induced activity amplification in neuronal systems (<i>12 pages</i>)	054402
Nataníel Martínez, Roberto R. Deza, and Fernando Montani	
Kinetic relaxation of giant vesicles validates diffusional softening in a binary lipid mixture (<i>10 pages</i>)	054403
Kayla Sapp, Mina Aleksanyan, Kaitlyn Kerr, Rumiana Dimova, and Alexander Sodt	
Onset model of mutually catalytic self-replicative systems formed by an assembly of polynucleotides (<i>11 pages</i>)	054404
Yasuji Sawada, Yasukazu Daigaku, and Kenji Toma	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 107, NUMBER 5

MAY 2023

Chimera patterns with spatial random swings between periodic attractors in a network of FitzHugh-Nagumo oscillators (9 pages)	054204
S. G. Ngueuteu Mbouna, Tanmoy Banerjee, and Eckehard Schöll	
Chaotic chimera attractors in a triangular network of identical oscillators (12 pages)	054205
Seungjae Lee and Katharina Krischer	
Fundamental and second-order dark soliton solutions of two- and three-component Manakov equations in the defocusing regime (28 pages)	054206
Wen-Juan Che, Chong Liu, and Nail Akhmediev	
Using coupling imperfection to control amplitude death (5 pages)	054207
Frank Thomas Ndjomatchoua, Byliole S. Djouda, Carlos Lawrence Gninzanlong, Thierry Landry Michel Mbong Djomo, Maxime Fabrice Kepnang Pebeu, and Clément Tchawoua	
Breathers in lattices with alternating strain-hardening and strain-softening interactions (18 pages)	054208
M. M. Lee, E. G. Charalampidis, S. Xing, C. Chong, and P. G. Kevrekidis	
Predicting chaotic dynamics from incomplete input via reservoir computing with $(D + 1)$ -dimension input and output (11 pages)	054209
Lufa Shi, Youfang Yan, Hengtong Wang, Shengjun Wang, and Shi-Xian Qu	
Experimental study of the elastic enhancement factor in a three-dimensional wave-chaotic microwave resonator exhibiting strongly overlapping resonances (6 pages)	054210
Małgorzata Białous, Barbara Dietz, and Leszek Sirko	
Nonlinear dynamics and bifurcations of a planar undulating magnetic microswimmer (9 pages)	054211
Jithu Paul, Yizhar Or, and Oleg V. Gendelman	
Modulation instability in nonlinear flexible mechanical metamaterials (11 pages)	054212
A. Demiquel, V. Achilleos, G. Theocharis, and V. Tournat	
Statistics of phase space localization measures and quantum chaos in the kicked top model (12 pages)	054213
Qian Wang and Marko Robnik	
Attractors and bifurcation diagrams in complex climate models (8 pages)	054214
Maura Brunetti and Charline Ragon	
Period-doubling bifurcations and islets of stability in two-degree-of-freedom Hamiltonian systems (10 pages) ...	054215
Alexandre R. Nieto, Jesús M. Seoane, and Miguel A. F. Sanjuán	
Influence of the internal degrees of freedom of coronene molecules on the nonlinear dynamics of a columnar chain (11 pages)	054216
Alexander V. Savin and Sergey V. Dmitriev	
Effects of nonlinearity and a new nonlinear resonance in two-path phonon transmittance in lattices with two-dimensional arrays of atomic defects (19 pages)	054217
I. P. Koroleva (Kikot) and Yu. A. Kosevich	
Flow-driven control of pulse width in excitable media (9 pages)	054218
Adrian Paul Misselwitz, Suzanne Lafon, Jean-Daniel Julien, and Karen Alim	
Effect of heterogeneous environmental conditions on labyrinthine vegetation patterns (9 pages)	054219
S. Echeverría-Alar, D. Pinto-Ramos, M. Tlidi, and M. G. Clerc	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 107, NUMBER 5

MAY 2023

Ornstein-Uhlenbeck process and generalizations: Particle dynamics under comb constraints and stochastic resetting (<i>18 pages</i>)	054129
Pece Trajanovski, Petar Jolakoski, Kiril Zelenkovski, Alexander Iomin, Ljupco Kocarev, and Trifce Sandev	
Most probable paths for active Ornstein-Uhlenbeck particles (<i>8 pages</i>)	054130
Sandipan Dutta	
Sample-to-sample fluctuations of transport coefficients in the totally asymmetric simple exclusion process with quenched disorder (<i>13 pages</i>)	054131
Issei Sakai and Takuma Akimoto	
First and second laws of information processing by nonequilibrium dynamical states (<i>13 pages</i>)	054132
Mikhael T. Semaan and James P. Crutchfield	
Pooling probability distributions and partial information decomposition (<i>9 pages</i>)	054133
S. J. van Enk	
Detecting genuine tripartite entanglement via general symmetric informationally complete measurements (<i>7 pages</i>)	054134
Jia Hao, Hui Zhao, Shao-Ming Fei, Chen Xie, and Zhi-Xi Wang	
Topological and nontopological mechanisms of loop formation in chromosomes: Effects on the contact probability (<i>8 pages</i>)	054135
Kirill Polovnikov and Bogdan Slavov	
Depinning in the quenched Kardar-Parisi-Zhang class. I. Mappings, simulations, and algorithm (<i>20 pages</i>)	054136
Gauthier Mukerjee, Juan A. Bonachela, Miguel A. Muñoz, and Kay Jörg Wiese	
Depinning in the quenched Kardar-Parisi-Zhang class. II. Field theory (<i>15 pages</i>)	054137
Gauthier Mukerjee and Kay Jörg Wiese	
Self-diffusion of a relativistic Lennard-Jones gas via semirelativistic molecular dynamics (<i>6 pages</i>)	054138
David Miles Testa, Pontus Svensson, Jacob Jackson, Thomas Campbell, and Gianluca Gregori	
Exact spatiotemporal dynamics of lattice random walks in hexagonal and honeycomb domains (<i>18 pages</i>)	054139
Daniel Marris, Seeralan Sarvaharman, and Luca Giuggioli	
Bounded learning and planning in public goods games (<i>9 pages</i>)	054140
Prakhar Godara and Stephan Herminghaus	
Screened Coulomb interaction in insulators with strong disorder (<i>9 pages</i>)	054141
V. A. Stephanovich, W. Olchawa, and E. V. Kirichenko	
Nonlinear Dynamics and Chaos	
Collapse and the interplay between essentiality and impact in socioecological systems (<i>13 pages</i>)	054201
R. C. Alamino and B. Nunes	
Signatures of the interplay between chaos and local criticality on the dynamics of scrambling in many-body systems (<i>17 pages</i>)	054202
Felix Meier, Mathias Steinhuber, Juan Diego Urbina, Daniel Waltner, and Thomas Guhr	
Discontinuous codimension-two bifurcation in a Vlasov equation (<i>16 pages</i>)	054203
Yoshiyuki Y. Yamaguchi and Julien Barré	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 107, NUMBER 5

MAY 2023

Order-disorder transition in the zero-temperature Ising model on random graphs (5 pages)	054112
Armin Pournaki, Eckehard Olbrich, Sven Banisch, and Konstantin Klemm	
Fluctuations of heat in driven two-state systems: Application to a single-electron box with superconducting gap (5 pages)	054113
Tuomas Pyh��ranta, Luca Peliti, and Jukka P. Pekola	
Sum-of-squares bounds on correlation functions in a minimal model of turbulence (8 pages)	054114
Vladimir Parfenyev, Evgeny Mogilevskiy, and Gregory Falkovich	
Full counting statistics and coherences: Fluctuation symmetry in heat transport with the unified quantum master equation (14 pages)	054115
Matthew Gerry and Dvira Segal	
Tensor network construction for lattice gas models: Hard-core and triangular lattice models (7 pages)	054116
Sergey S. Akimenko	
Evidence of T -type structures of hard square boards in capillary confinement (13 pages)	054117
Roohollah Aliabadi, Soudabe Nasirimoghadam, and Henricus Herman Wensink	
Universal singularities of anomalous diffusion in the Richardson class (6 pages)	054118
Attilio L. Stella, Aleksei Chechkin, and Gianluca Teza	
Transient chiral dynamics revealed by two-dimensional circular dichroism spectroscopy (10 pages)	054119
Zihui Liu, Ajay Jha, Xian-Ting Liang, and Hong-Guang Duan	
Demixing of homogeneous binary lipid membranes induced by protein inclusions (26 pages)	054120
Piotr Nowakowski, Bernd Henning Stumpf, Ana-Sun��ana Smith, and Anna Macio��lek	
Exact results for the residual entropy of ice hexagonal monolayer (8 pages)	054121
De-Zhang Li, Wei-Jie Huang, Yao Yao, and Xiao-Bao Yang	
Quantum criticality of a $\mathbb{Z}_3$ -symmetric spin chain with long-range interactions (12 pages)	054122
Xue-Jia Yu, Chengxiang Ding, and Limei Xu	
Nontrivial effect of dephasing: Enhancement of rectification of spin current in graded XX chains (9 pages)	054123
Saulo H. S. Silva, Gabriel T. Landi, and Emmanuel Pereira	
Inverse problem beyond two-body interaction: The cubic mean-field Ising model (10 pages)	054124
Pierluigi Contucci, Godwin Osabutey, and Cecilia Vernia	
Quantum battery based on dipole-dipole interaction and external driving field (10 pages)	054125
Wuji Zhang, Shuyue Wang, Chunfeng Wu, and Gangcheng Wang	
Derivation of field theory for the classical dimer model using bosonization (18 pages)	054126
Neil Wilkins and Stephen Powell	
Simulating first-order phase transition with hierarchical autoregressive networks (12 pages)	054127
Piotr Bia��as, Paulina Czarnota, Piotr Korcyl, and Tomasz Stebel	
Bivariate moments of the two-point correlation function for embedded Gaussian unitary ensemble with k -body interactions (18 pages)	054128
V. K. B. Kota	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 107, NUMBER 5

MAY 2023

Granular Materials

- Grain size distribution does not affect the residual shear strength of granular materials:
An experimental proof (*6 pages*) L052901
Oscar Polanía, Miguel Cabrera, Mathieu Renouf, Emilien Azéma, and Nicolas Estrada

Solid Mechanics

- Canceling the elastic Poynting effect with geometry (*4 pages*) L053001
M. Destrade, Y. Du, J. Blackwell, N. Colgan, and V. Balbi

Computational Physics

- Semidefinite programming algorithm for the quantum mechanical bootstrap (*5 pages*) L053301
David Berenstein and George Hulsey

ARTICLES

Statistical Physics

- Computer simulations and mode-coupling theory of glass-forming confined hard-sphere fluids (*14 pages*) 054101
Gerhard Jung and Thomas Franosch
- Steady-state thermodynamics: Description equivalence and violation of reservoir independence (*15 pages*) 054102
Leonardo Ferreira Calazans and Ronald Dickman
-  Cluster percolation in the two-dimensional Ising spin glass (*15 pages*) 054103
L. Münster and M. Weigel
- Group-equivariant autoencoder for identifying spontaneously broken symmetries (*26 pages*) 054104
Devanshu Agrawal, Adrian Del Maestro, Steven Johnston, and James Ostrowski
- Nonequilibrium currents in stochastic field theories: A geometric insight (*9 pages*) 054105
J. O’Byrne
- Opinion formation models with extreme switches and disorder: Critical behavior and dynamics (*6 pages*) 054106
Kathakali Biswas and Parongama Sen
- Penetration of waves in global stochastic conducting media (*11 pages*) 054107
Marco Nizama and Manuel O. Cáceres
- Spectral properties of size-invariant shape transformation (*16 pages*) 054108
Alhun Aydin
- Leftward, rightward, and complete exit-time distributions of jump processes (*7 pages*) 054109
J. Klinger, R. Voituriez, and O. Bénichou
- Measurement-based quantum Otto engine with a two-spin system coupled by anisotropic interaction:
Enhanced efficiency at finite times (*11 pages*) 054110
Chayan Purkait and Asoka Biswas
- Dynamical large deviations of linear diffusions (*18 pages*) 054111
Johan du Buisson and Hugo Touchette

(Continued)

PHYSICAL REVIEW E™

For editorial and subscription correspondence,
please see inside front cover
(ISSN: 2470-0045)

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

THIRD SERIES, VOLUME 107, NUMBER 5
PARTS A AND B

CONTENTS

MAY 2023

The Table of Contents is a total listing of Parts A and B.
Part A consists of pages L052101–054222, and Part B pages 054301–056602.

PART A

LETTERS

Statistical Physics

- Thermodynamic uncertainty relations for steady-state thermodynamics (*5 pages*) L052101
Takuya Kamijima, Sosuke Ito, Andreas Dechant, and Takahiro Sagawa
- Ensemble dependence of information-theoretic contributions to the entropy production (*6 pages*) L052102
Krzysztof Ptaszyński and Massimiliano Esposito
- Non-self-averaging of current in a totally asymmetric simple exclusion process with quenched disorder (*6 pages*) L052103
Issei Sakai and Takuma Akimoto
-  Information-to-work conversion in single-molecule experiments: From discrete to continuous feedback (*7 pages*) L052104
Regina K. Schmitt, Patrick P. Potts, Heiner Linke, Jonas Johansson, Peter Samuelsson,
Marc Rico-Pasto, and Felix Ritort

Nonlinear Dynamics and Chaos

- Saddle-node bifurcation of periodic orbit route to hidden attractors (*5 pages*) L052201
Suresh Kumarasamy, Malay Banerjee, Vaibhav Varshney, Manish Dev Shrimali,
Nikolay V. Kuznetsov, and Awadhesh Prasad
- Completely integrable replicator dynamics associated to competitive networks (*5 pages*) L052202
Joshua Paik and Christopher Griffin

Colloids, Complex Fluids, and Active Matter

- Entry of microparticles into giant lipid vesicles by optical tweezers (*6 pages*) L052601
Florent Fessler, Vaibhav Sharma, Pierre Muller, and Antonio Stocco
- Shape- and orientation-dependent diffusiophoresis of colloidal ellipsoids (*6 pages*) L052602
Viet Sang Doan, Dong-Ook Kim, Craig Snoeyink, Ying Sun, and Sangwoo Shin

Films and Interfaces

- Scaling laws for two-dimensional dendritic crystal growth in a narrow channel (*6 pages*) L052801
Younggil Song, Damien Turret, and Alain Karma



(Continued)



2470-0045(202305)107:5:B;1-Z

 This paper was highlighted in the APS publication *Physics* (physics.aps.org).

 The editors and referees of PRE find these papers to be of particular interest, importance, or clarity. Please see our Announcement Phys. Rev. E 89, 010001 (2014).