

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 102, NUMBER 3

SEPTEMBER 2020

COMMENTS

Comment on “Partial equivalence of statistical ensembles in a simple spin model with discontinuous phase transitions” (2 <i>pages</i>)	036101
Ji-Xuan Hou	
Reply to “Comment on ‘Partial equivalence of statistical ensembles in a simple spin model with discontinuous phase transitions’ ” (1 <i>page</i>)	036102
Agata Fronczak, Piotr Fronczak, and Grzegorz Siudem	

ERRATA

Erratum: Critical exponents in mean-field classical spin systems [Phys. Rev. E 100 , 032131 (2019)] (1 <i>page</i>)	039901(E)
Yoshiyuki Y. Yamaguchi, Debraj Das, and Shamik Gupta	
Erratum: Modeling the quasistatic energy transport between nanoparticles [Phys. Rev. E 92 , 062138 (2015)] (2 <i>pages</i>)	039902(E)
George Y. Panasyuk and Kirk L. Yerkes	

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 102, NUMBER 3

SEPTEMBER 2020

Nonlinear Landau damping of plasma waves with orbital angular momentum (<i>8 pages</i>)	033208
D. R. Blackman, R. Nuter, Ph. Korneev, and V. T. Tikhonchuk	
Transient analysis of the nonmonotonic response of counterflow laminar diffusion flames in alternating current and step electric fields using a one-dimensional ionic transport model (<i>15 pages</i>)	033209
Byung Chul Choi and Pyeong Jun Park	
Stationary solutions of equations of motion for a radiating charged particle including a radiation reaction effect (<i>5 pages</i>)	033210
Tatsufumi Nakamura	
Computational Physics	
Scalable neural networks for the efficient learning of disordered quantum systems (<i>11 pages</i>)	033301
N. Saraceni, S. Cantori, and S. Pilati	
Simulating pitch angle scattering using an explicitly solvable energy-conserving algorithm (<i>12 pages</i>)	033302
Xin Zhang, Yichen Fu, and Hong Qin	
Extending machine learning classification capabilities with histogram reweighting (<i>8 pages</i>)	033303
Dimitrios Bachtis, Gert Aarts, and Biagio Lucini	
Estimation of the probability density function of random displacements from images (<i>11 pages</i>)	033305
Adib Ahmadzadegan, Arezoo M. Ardekani, and Pavlos P. Vlachos	
Flat-histogram method comparison on the two-dimensional Ising model (<i>6 pages</i>)	033306
Jordan K. Pommerenck and David Roundy	
Force approach for the pseudopotential lattice Boltzmann method (<i>19 pages</i>)	033307
L. E. Czelusniak, V. P. Mapelli, M. S. Guzella, L. Cabezas-Gómez, and Alexander J. Wagner	
dc electric cloak concentrator via topology optimization (<i>8 pages</i>)	033308
Garuda Fujii and Youhei Akimoto	
Numerical method for the projected Gross-Pitaevskii equation in an infinite rotating two-dimensional Bose gas (<i>13 pages</i>)	033309
R. Doran and T. P. Billam	
Multiscale kinetic inviscid flux extracted from a gas-kinetic scheme for simulating incompressible and compressible flows (<i>18 pages</i>)	033310
Sha Liu, Junzhe Cao, and Chengwen Zhong	
Application of the view factor model on the particle-in-cell and Monte Carlo collision code (<i>15 pages</i>)	033311
Ruojian Pan, Junxue Ren, Haibin Tang, Shuai Cao, Juan Li, Zhe Zhang, Jun Zhou, and Jinbin Cao	
Particle-in-cell simulation method for macroscopic degenerate plasmas (<i>11 pages</i>)	033312
D. Wu, W. Yu, S. Fritzsche, and X. T. He	
Smoothed particle hydrodynamics modeling of fuel drop impact on a heated surface at atmospheric and elevated pressures (<i>8 pages</i>)	033313
Xiufeng Yang and Song-Charng Kong	
Mapping topological characteristics of dynamical systems into neural networks: A reservoir computing approach (<i>6 pages</i>)	033314
Xiaolu Chen, Tongfeng Weng, Huijie Yang, Changui Gu, Jie Zhang, and Michael Small	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 102, NUMBER 3

SEPTEMBER 2020

From turbulence to landscapes: Logarithmic mean profiles in bounded complex systems (9 pages)	033107
Milad Hooshyar, Sara Bonetti, Arvind Singh, Efi Foufoula-Georgiou, and Amilcare Porporato	
Nonspherical modes nondegeneracy of a tethered bubble (11 pages)	033108
Maxime Fauconnier, Jean-Christophe Béra, and Claude Inserra	
Diffusion enhancement in a levitated droplet via oscillatory deformation (10 pages)	033109
Yuki Koyano, Hiroyuki Kitahata, Koji Hasegawa, Satoshi Matsumoto, Katsuhiro Nishinari, Tadashi Watanabe, Akiko Kaneko, and Yutaka Abe	
Molecular transportation phenomena of simple liquids through a nanoporous graphene membrane (11 pages)	033110
Mohammad Rashedul Hasan and BoHung Kim	
Small-Peclet-number approximation for stellar turbulent mixing zones (18 pages)	033111
Jean-Cédric Chkair, Olivier Souldard, Jérôme Griffond, and Xavier Blanc	
Coupling effects in electromechanical ion transport in graphene nanochannels (8 pages)	033112
Yakang Jin, Tiniao Ng, Ran Tao, Shuang Luo, Yan Su, and Zhigang Li	
Geometrically derived efficiency of slow immiscible displacement in porous media (15 pages)	033113
Carl Fredrik Berg, Per Arne Slotte, and Hamid Hosseinzade Khanamiri	
Minimal model of the hydrodynamical coupling of flagella on a spherical body with application to <i>Volvox</i> (6 pages)	033114
Forest O. Mannan, Miika Jarvela, and Karin Leiderman	
Large deformations of the hook affect free-swimming singly flagellated bacteria during flick motility (13 pages)	033115
Mehdi Jabbarzadeh and Henry Chien Fu	
Plasma Physics	
Superfast ion scattering by solar wind discontinuities (7 pages)	033201
A. V. Artemyev, A. I. Neishtadt, A. A. Vasiliev, V. Angelopoulos, A. A. Vinogradov, and L. M. Zelenyi	
Relativistic magnetic reconnection in laser laboratory for testing an emission mechanism of hard-state black hole system (14 pages)	033202
K. F. F. Law, Y. Abe, A. Morace, Y. Arikawa, S. Sakata, S. Lee, K. Matsuo, H. Morita, Y. Ochiai, C. Liu, A. Yogo, K. Okamoto, D. Golovin, M. Ehret, T. Ozaki, M. Nakai, Y. Sentoku, J. J. Santos, E. d'Humières, Ph. Korneev, and S. Fujioka	
Uniform electron gas at finite temperature by fermionic-path-integral Monte Carlo simulations (11 pages)	033203
V. S. Filinov, A. S. Larkin, and P. R. Levashov	
Numerical modeling of laser tunneling ionization in particle-in-cell codes with a laser envelope model (17 pages)	033204
F. Massimo, A. Beck, J. Derouillat, I. Zemzemi, and A. Specka	
Melting, freezing, and dynamics of two-dimensional dipole systems in screening bulk media (13 pages)	033205
Ye. K. Aldakul, Zh. A. Moldabekov, and T. S. Ramazanov	
Coulomb logarithm accuracy in a Yukawa potential (6 pages)	033206
P. Mora	
Dispersion relations of Yukawa fluids at weak and moderate coupling (8 pages)	033207
Sergey Khrapak and Lénaïc Couëdel	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 102, NUMBER 3

SEPTEMBER 2020

Compaction of mixtures of rigid and highly deformable particles: A micromechanical model (<i>10 pages</i>)	032904
Manuel Cárdenas-Barrantes, David Cantor, Jonathan Barés, Mathieu Renouf, and Emilien Azéma	
Solid Mechanics	
Delamination of open cylindrical shells from soft and adhesive Winkler's foundation (<i>11 pages</i>)	033001
Oz Oshri	
 Buckling and metastability in membranes with dilation arrays (<i>20 pages</i>)	033002
Abigail Plummer and David R. Nelson	
Continuum constitutive laws to describe acoustic attenuation in glasses (<i>11 pages</i>)	033003
H. Luo, A. Gravouil, V. M. Giordano, W. Schirmacher, and A. Tanguy	
Buckling-induced interaction between circular inclusions in an infinite thin plate (<i>17 pages</i>)	033004
Oz Oshri, Santidan Biswas, and Anna C. Balazs	
Plasticity and aging of folded elastic sheets (<i>8 pages</i>)	033005
T. Jules, F. Lechenault, and M. Adda-Bedia	
Origin of reversible and irreversible atomic-scale rearrangements in a model two-dimensional network glass (<i>6 pages</i>)	033006
Firaz Ebrahim, Franz Bamer, and Bernd Markert	
 Ballooning, bulging, and necking: An exact solution for longitudinal phase separation in elastic systems near a critical point (<i>14 pages</i>)	033007
Andrea Giudici and John S. Biggins	
Extracting the properties of quasilocalized modes in computer glasses: Long-range continuum fields, contour integrals, and boundary effects (<i>11 pages</i>)	033008
Avraham Moriel, Yuri Lubomirsky, Edan Lerner, and Eran Bouchbinder	
Fluid Dynamics	
Three-dimensional multiscale flow structures behind a wall-mounted short cylinder based on tomographic particle image velocimetry and three-dimensional orthogonal wavelet transform (<i>17 pages</i>)	033101
Hiroka Rinoshika, Akira Rinoshika, and Jin-Jun Wang	
Scaling laws of electroconvective flow with finite vortex height near permselective membranes (<i>8 pages</i>)	033102
Wei Liu, Yueting Zhou, and Pengpeng Shi	
Breakup of an electrified viscoelastic liquid bridge (<i>14 pages</i>)	033103
Manuel Rubio, Emilio J. Vega, Miguel A. Herrada, José M. Montanero, and Francisco J. Galindo-Rosales	
Microscale modeling of nondilute flow and transport in porous medium systems (<i>17 pages</i>)	033104
Timothy M. Weigand and Cass T. Miller	
Linearly forced isotropic turbulence at low Reynolds numbers (<i>9 pages</i>)	033105
Wouter J. T. Bos, Faouzi Laadhari, and Wesley Agoua	
Pinning-depinning of the contact line during drop evaporation on textured surfaces: A lattice Boltzmann study (<i>11 pages</i>)	033106
Kamal Jannati, Mohammad Hassan Rahimian, and Mostafa Moradi	

(Continued)

Coarsening in the two-dimensional incompressible Toner-Tu equation: Signatures of turbulence (<i>9 pages</i>)	032617
Navdeep Rana and Prasad Perlekar	
Tracer diffusion in crowded solutions of sticky polymers (<i>11 pages</i>)	032618
T. P. O. Nogueira, H. O. Frota, Francesco Piazza, and José Rafael Bordin	
Aggregate morphology of active Brownian particles on porous, circular walls (<i>9 pages</i>)	032619
Suchismita Das, Sounok Ghosh, and Raghunath Chelakkot	
Liquid Crystals	
Curvature elasticity of smectic-C liquid crystals and formation of stripe domains along thickness gradients in menisci of free-standing films (<i>9 pages</i>)	032701
N. V. Madhusudana	
Multidirectional switching behavior by transversely stretching a composite cholesteric elastomer (<i>10 pages</i>)	032702
Guillermo Reyes and Juan Adrián Reyes	
Correlation between alignment geometries and memory effect in a surface-stabilized ferroelectric liquid crystal (<i>10 pages</i>)	032703
Suraj Kumar, Lokesh K. Gangwar, Ambika Bawa, Amit Choudhary, Rajesh, Surinder P. Singh, and Ashok M. Biradar	
Structure and grating efficiency of thin cells filled by a twist-bend nematic liquid crystal (<i>10 pages</i>)	032704
M. Ali, E. Gorecka, D. Pociecha, and N. Vaupotič	

ARTICLES

Films and Interfaces

Surface-directed spinodal decomposition on morphologically patterned substrates (<i>8 pages</i>)	032801
Prasenjit Das, Prabhat K. Jaiswal, and Sanjay Puri	
Universal dynamics of coarsening during polymer-polymer thin-film spinodal dewetting kinetics (<i>6 pages</i>)	032802
J. Lal, L. B. Lurio, D. Liang, S. Narayanan, S. B. Darling, and M. Sutton	
Oscillatory-nonoscillatory transitions for inclined cellular patterns in three-dimensional directional solidification (<i>12 pages</i>)	032803
Fatima L. Mota, Nathalie Bergeon, Alain Karma, Rohit Trivedi, and Jean-Marc Debierre	
Experimental characterization and theoretical analysis of cell tip oscillations in directional solidification (<i>13 pages</i>)	032804
J. Pereda, F. L. Mota, J.-M. Debierre, B. Billia, R. Trivedi, A. Karma, and N. Bergeon	

Granular Materials

Collapse modes in simple cubic and body-centered cubic arrangements of elastic beads (<i>5 pages</i>)	032901
Igor A. Ostanin, Artem R. Oganov, and Vanessa Magnanimo	
Granular scaling laws for helically driven dynamics (<i>8 pages</i>)	032902
Andrew Thoesen, Teresa McBryan, Darwin Mick, Marko Green, Justin Martia, and Hamid Marvi	
Granular packings with sliding, rolling, and twisting friction (<i>9 pages</i>)	032903
A. P. Santos, Dan S. Bolintineanu, Gary S. Grest, Jeremy B. Lechman, Steven J. Plimpton, Ishan Srivastava, and Leonardo E. Silbert	

(Continued)

Colloids, Complex Fluids, and Active Matter

Impact of ion-steric and ion-partitioning effects on electrophoresis of soft particles (<i>10 pages</i>)	032601
Partha P. Gopmandal, Simanta De, S. Bhattacharyya, and H. Ohshima	
Integration through transients approach to the $\mu(\mathcal{T})$ rheology (<i>10 pages</i>)	032602
O. Coquand, M. Sperl, and W. T. Kranz	
Static magnetic response of multicore particles (<i>10 pages</i>)	032603
Alexey O. Ivanov and Frank Ludwig	
Local self-motion of water through the Van Hove function (<i>7 pages</i>)	032604
Yuya Shinohara, Wojciech Dmowski, Takuya Iwashita, Daisuke Ishikawa, Alfred Q. R. Baron, and Takeshi Egami	
Microscopic origin of shear banding as a localized driven glass transition in compressed colloidal pillars (<i>9 pages</i>)	032605
Daniel J. Strickland, Drew S. Melchert, Jyo Lyn Hor, Carlos P. Ortiz, Daeyeon Lee, and Daniel S. Gianola	
Accounts of the changes in dynamics of hydrogen-bonded materials by pressure, nanoconfinement, and hyperquenching (<i>9 pages</i>)	032606
K. L. Ngai	
Emergent behavior in an adversarial synchronization and swarming model (<i>12 pages</i>)	032607
Timothy A. McLennan-Smith, Dale O. Roberts, and Harvinder S. Sidhu	
Shapes of fluid membranes with chiral edges (<i>8 pages</i>)	032608
Lijie Ding, Robert A. Pelcovits, and Thomas R. Powers	
Competing active and passive interactions drive amoebalike crystallites and ordered bands in active colloids (<i>11 pages</i>)	032609
Abraham Mauleon-Amieva, Majid Mosayebi, James E. Hallett, Francesco Turci, Tanniemola B. Liverpool, Jeroen S. van Duijneveldt, and C. Patrick Royall	
Effects of interactions on magnetization relaxation dynamics in ferrofluids (<i>9 pages</i>)	032610
Alexey O. Ivanov and Philip J. Camp	
Tagged-particle dynamics in confined colloidal liquids (<i>16 pages</i>)	032611
Gerhard Jung, Lukas Schrack, and Thomas Franosch	
Frictional active Brownian particles (<i>7 pages</i>)	032612
Pin Nie, Joyjit Chatteraj, Antonio Piscitelli, Patrick Doyle, Ran Ni, and Massimo Pica Ciamarra	
Confinement-induced alternating interactions between inclusions in an active fluid (<i>12 pages</i>)	032613
Mahdi Zarif and Ali Naji	
Influence of ion size effects on the electrokinetics of aqueous salt-free colloids in alternating electric fields (<i>15 pages</i>)	032614
F. Carrique, E. Ruiz-Reina, F. J. Arroyo, and A. V. Delgado	
Particle shapes leading to Newtonian dilute suspensions (<i>5 pages</i>)	032615
David A. King, Masao Doi, and Erika Eiser	
Universality in incompressible active fluid: Effect of nonlocal shear stress (<i>13 pages</i>)	032616
V. Škultéty, Š. Birnšteínová, T. Lučivjanský, and J. Honkonen	

(Continued)

Classification of particle trajectories in living cells: Machine learning versus statistical testing hypothesis for fractional anomalous diffusion (<i>13 pages</i>)	032402
Joanna Janczura, Patrycja Kowalek, Hanna Loch-Olszewska, Janusz Szwabiński, and Aleksander Weron	
Molecular dynamics study of ways of RNA base-pair formation (<i>9 pages</i>)	032403
Qiangqiang Duan, Peng Tao, Jun Wang, and Yi Xiao	
Landau theory for cellular patterns driven by lateral inhibition interaction (<i>11 pages</i>)	032404
J. M. Sancho and Marta Ibañes	
Crucial role of the intrinsic twist rate for the size of an intrinsically curved semiflexible biopolymer (<i>10 pages</i>)	032405
Zicong Zhou	
Generalized half-center oscillators with short-term synaptic plasticity (<i>8 pages</i>)	032406
V. Baruzzi, M. Lodi, M. Storace, and A. Shilnikov	
Softening of DNA near melting as disappearance of an emergent property (<i>9 pages</i>)	032407
Debjyoti Majumdar and Somendra M. Bhattacharjee	
Diffusion of antibiotics through a biofilm in the presence of diffusion and absorption barriers (<i>11 pages</i>)	032408
Tadeusz Kosztolowicz and Ralf Metzler	
 Nontrivial amplification below the threshold for excitable cell signaling (<i>17 pages</i>)	032409
Emma Iverson, Minjing Yang, Hongyong Zhang, and Jonathan H. McCoy	
Fast and slow axonal transport: A unified approach based on cargo and molecular motor coupled dynamics (<i>14 pages</i>)	032410
Alexandre Y. C. Cho, Victor R. C. Mourão Roque, and Carla Goldman	
Theory of unpinning of spiral waves using circularly polarized electric fields in mathematical models of excitable media (<i>6 pages</i>)	032411
Shreyas Punacha, Naveena Kumara A., and T. K. Shajahan	
Phase bistability between anticipated and delayed synchronization in neuronal populations (<i>7 pages</i>)	032412
Júlio Nunes Machado and Fernanda Selingardi Matias	
Signaling activations through G-protein-coupled-receptor aggregations (<i>6 pages</i>)	032413
Masaki Watabe, Hideaki Yoshimura, Satya N. V. Arjunan, Kazunari Kaizu, and Koichi Takahashi	
Effective model of loop extrusion predicts chromosomal domains (<i>11 pages</i>)	032414
Martina Crippa, Yinxu Zhan, and Guido Tiana	
Switch of fractal properties of DNA in chicken erythrocytes nuclei by mechanical stress (<i>7 pages</i>)	032415
S. V. Grigoriev, E. G. Iashina, V. Yu. Bairamukov, V. Pipich, A. Radulescu, M. V. Filatov, R. A. Pantina, and E. Yu. Varfolomeeva	
Polymers	
Model for athermal enhancement of molecular mobility in solid polymers by light (<i>6 pages</i>)	032501
Zouheir Sekkat	
Hydrodynamic interactions in topologically linked ring polymers (<i>6 pages</i>)	032502
Phillip M. Rauscher, Stuart J. Rowan, and Juan J. de Pablo	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 102, NUMBER 3

SEPTEMBER 2020

Nonadiabatic effects in the double ionization of atoms driven by a circularly polarized laser pulse (<i>17 pages</i>)	032218
J. Dubois, C. Chandre, and T. Uzer	
Susceptibility of transient chimera states (<i>7 pages</i>)	032219
Thomas Lilienkamp and Ulrich Parlitz	
Stability and quantum escape dynamics of spin-orbit-coupled Bose-Einstein condensates in the shallow trap (<i>10 pages</i>)	032220
Yan-Chao Zhang, Yue Jian, Zi-Fa Yu, Ai-Xia Zhang, and Ju-Kui Xue	
Detection of unknown signals in arbitrary noise (<i>9 pages</i>)	032221
Glenn Ierley and Alex Kostinski	
Networks and Complex Systems	
Exotic critical behavior of weak multiplex percolation (<i>10 pages</i>)	032301
G. J. Baxter, R. A. da Costa, S. N. Dorogovtsev, and J. F. F. Mendes	
Heterogeneity in outcomes of repeated instances of percolation experiments (<i>12 pages</i>)	032302
Reimer Kühn and Jort van Mourik	
Multilayer network approach to modeling authorship influence on citation dynamics in physics journals (<i>14 pages</i>)	032303
Vahan Nanumyan, Christoph Gote, and Frank Schweitzer	
Choosing among alternative histories of a tree (<i>15 pages</i>)	032304
G. Timár, R. A. da Costa, S. N. Dorogovtsev, and J. F. F. Mendes	
Epidemics with containment measures (<i>14 pages</i>)	032305
Ginestra Bianconi and P. L. Krapivsky	
Null models for multioptimized large-scale network structures (<i>11 pages</i>)	032306
Sebastian Morel-Balbi and Tiago P. Peixoto	
Large-scale influence of defect bonds in geometrically constrained self-assembly (<i>10 pages</i>)	032307
Bosiljka Tadić, Milovan Šuvakov, Miroslav Andjelković, and Geoff J. Rodgers	
Role of bridge nodes in epidemic spreading: Different regimes and crossovers (<i>11 pages</i>)	032308
Jing Ma, Lucas D. Valdez, and Lidia A. Braunstein	
Community detection in bipartite networks with stochastic block models (<i>16 pages</i>)	032309
Tzu-Chi Yen and Daniel B. Larremore	
Mixing protocols in the public goods game (<i>6 pages</i>)	032310
Maja Duh, Marko Gosak, and Matjaž Perc	

PART B

Biological Physics

Dodecyltrimethylammonium bromide surfactant effects on DNA: Unraveling the competition between electrostatic and hydrophobic interactions (<i>9 pages</i>)	032401
E. F. Silva, U. M. S. Andrade, K. M. de Oliveira, A. V. N. C. Teixeira, and M. S. Rocha	

(Continued)

Nonlinear Dynamics and Chaos

Nonlocal M -component nonlinear Schrödinger equations: Bright solitons, energy-sharing collisions, and positons (<i>19 pages</i>)	032201
Jiguang Rao, Jingsong He, T. Kanna, and Dumitru Mihalache	
Kuramoto model with additional nearest-neighbor interactions: Existence of a nonequilibrium tricritical point (<i>14 pages</i>)	032202
Mrinal Sarkar and Shamik Gupta	
Equal-intensity waves in non-Hermitian media (<i>8 pages</i>)	032203
I. Komis, S. Sardelis, Z. H. Musslimani, and K. G. Makris	
Random motion theory of an optical vortex in nonlinear birefringent media (<i>7 pages</i>)	032204
Satoshi Tsuchida and Hiroshi Kuratsuji	
Amplitude suppression of oscillators with delay connections and slow switching topology (<i>11 pages</i>)	032206
Tetsu Iwamoto, Yoshiki Sugitani, Shinnosuke Masamura, Keiji Konishi, and Naoyuki Hara	
Localized modes in a two-dimensional lattice with a pluslike geometry (<i>9 pages</i>)	032207
Marija Stojanović Krasić, Mirjana Stojanović, Aleksandra Maluckov, Lukas J. Maczewsky, Alexander Szameit, and Milutin Stepic	
Quantum chaos in a system with high degree of symmetries (<i>12 pages</i>)	032208
Javier de la Cruz, Sergio Lerma-Hernández, and Jorge G. Hirsch	
Volterra-series approach to stochastic nonlinear dynamics: Linear response of the Van der Pol oscillator driven by white noise (<i>12 pages</i>)	032209
Roman Belousov, Florian Berger, and A. J. Hudspeth	
Adaptive stochastic continuation with a modified lifting procedure applied to complex systems (<i>19 pages</i>)	032210
Clemens Willers, Uwe Thiele, Andrew J. Archer, David J. B. Lloyd, and Oliver Kamps	
Forced harmonic oscillator interpreted as diffraction of light (<i>6 pages</i>)	032211
Toshihiko Hiraiwa, Kouichi Soutome, and Hitoshi Tanaka	
Statistical properties of the localization measure of chaotic eigenstates in the Dicke model (<i>13 pages</i>)	032212
Qian Wang and Marko Robnik	
Piecewise linear model of self-organized hierarchy formation (<i>10 pages</i>)	032213
Tomoshige Miyaguchi, Takamasa Miki, and Ryota Hamada	
Eckhaus selection: The mechanism of pattern persistence in a reaction-diffusion system (<i>7 pages</i>)	032214
Aldo Ledesma-Durán, E. A. Ortiz-Durán, J. L. Aragón, and Iván Santamaría-Holek	
Formation of dispersive shock waves in a saturable nonlinear medium (<i>17 pages</i>)	032215
Sergey K. Ivanov, Jules-Elémir Suchorski, Anatoly M. Kamchatnov, Mathieu Isoard, and Nicolas Pavloff	
Anticipated synchronization in human EEG data: Unidirectional causality with negative phase lag (<i>9 pages</i>)	032216
Francisco-Leandro P. Carlos, Maciel-Monteiro Ubirakitan, Marcelo Cairrão Araújo Rodrigues, Moisés Aguilar-Domingo, Eva Herrera-Gutiérrez, Jesús Gómez-Amor, Mauro Copelli, Pedro V. Carelli, and Fernanda S. Matias	
Bénard–von Kármán vortex street in a spin-orbit-coupled Bose-Einstein condensate (<i>7 pages</i>)	032217
Xue-Ying Yang, Xiao-Lin Li, Na Tang, Zhi-Kun Zhou, Lin Song, Juan Zhang, and Yu-Ren Shi	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 102, NUMBER 3

SEPTEMBER 2020

Corner transfer matrix renormalization group analysis of the two-dimensional dodecahedron model (<i>8 pages</i>)	032130
Hiroshi Ueda, Kouichi Okunishi, Seiji Yunoki, and Tomotoshi Nishino	
Spectral statistics of multiparametric Gaussian ensembles with chiral symmetry (<i>16 pages</i>)	032131
Triparna Mondal and Pragma Shukla	
Trapping in self-avoiding walks with nearest-neighbor attraction (<i>8 pages</i>)	032132
Wyatt Hooper and Alexander R. Klotz	
Kinetic Monte Carlo model for the COVID-19 epidemic: Impact of mobility restriction on a COVID-19 outbreak (<i>8 pages</i>)	032133
Leonardo Evaristo de Sousa, Pedro Henrique de Oliveira Neto, and Demetrio Antônio da Silva Filho	
Across dimensions: Two- and three-dimensional phase transitions from the iterative renormalization-group theory of chains (<i>4 pages</i>)	032134
Ibrahim Keçoğlu and A. Nihat Berker	
Precision and dissipation of a stochastic Turing pattern (<i>7 pages</i>)	032135
Shubhashis Rana and Andre C. Barato	
Maximum entropy method for estimating the reproduction number: An investigation for COVID-19 in China and the United States (<i>7 pages</i>)	032136
Yong Tao	
Anomalous diffusion of a quantum Brownian particle in a one-dimensional molecular chain (<i>17 pages</i>)	032137
Sho Nakade, Kazuki Kanki, Satoshi Tanaka, and Tomio Petrosky	
Free energy of domain walls and order-disorder transition in a triangular lattice with anisotropic nearest-neighbor interactions (<i>11 pages</i>)	032138
Martina Tsvetanova, Kai Sotthewes, and Harold J. W. Zandvliet	
Transverse field effects on the competition between antiferromagnetic and cluster spin-glass phases (<i>7 pages</i>)	032139
M. Schmidt, N. Kellermann, and F. M. Zimmer	
Geometric phase and bilayer cloak in macroscopic particle-diffusion systems (<i>9 pages</i>)	032140
Liujun Xu, Gaole Dai, Gang Wang, and Jiping Huang	
Asymptotic correlation functions in the Q -state Potts model: A universal form for point group C_{4v} (<i>18 pages</i>)	032141
Masafumi Fujimoto and Hiromi Otsuka	
Thermal-rectification coefficients in solid-state thermal rectifiers (<i>6 pages</i>)	032142
Wataru Kobayashi	
Energy of the interacting self-avoiding walk at the θ point (<i>6 pages</i>)	032143
Simone Franchini and Riccardo Balzan	
Equilibration on average in quantum processes with finite temporal resolution (<i>9 pages</i>)	032144
Pedro Figueroa-Romero, Kavan Modi, and Felix A. Pollock	
Role of dimensions in first passage of a diffusing particle under stochastic resetting and attractive bias (<i>14 pages</i>)	032145
Saeed Ahmad and Dibyendu Das	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 102, NUMBER 3

SEPTEMBER 2020

Field-induced freezing in the unfrustrated Ising antiferromagnet (<i>11 pages</i>)	032112
Adam Iaizzi	
New ordered phase in geometrically frustrated generalized XY model (<i>10 pages</i>)	032113
M. Lach and M. Žukovič	
Stochastic thermodynamics of systems with a continuous space of states (<i>12 pages</i>)	032114
Mário J. de Oliveira	
Zero-determinant strategies under observation errors in repeated games (<i>13 pages</i>)	032115
Azumi Mamiya and Genki Ichinose	
Brownian heat engine with active reservoirs (<i>11 pages</i>)	032116
Jae Sung Lee, Jong-Min Park, and Hyunggyu Park	
Anomalous reaction-diffusion equations for linear reactions (<i>6 pages</i>)	032117
Sean D. Lawley	
First-encounter time of two diffusing particles in confinement (<i>16 pages</i>)	032118
F. Le Vot, S. B. Yuste, E. Abad, and D. S. Grebenkov	
 Statistical learning theory of structured data (<i>17 pages</i>)	032119
Mauro Pastore, Pietro Rotondo, Vittorio Erba, and Marco Gherardi	
Evolution of cooperation in social dilemmas under the coexistence of aspiration and imitation mechanisms (<i>13 pages</i>)	032120
Md. Rajib Arefin and Jun Tanimoto	
Equilibrium properties of two-species reactive lattice gases on random catalytic chains (<i>24 pages</i>)	032121
Dmytro Shapoval, Maxym Dudka, Olivier Bénichou, and Gleb Oshanin	
Classical Goldstone modes in long-range interacting systems (<i>16 pages</i>)	032122
T. M. Rocha Filho and B. Marcos	
Jamming and percolation of linear k -mers on honeycomb lattices (<i>11 pages</i>)	032123
G. A. Iglesias Panuska, P. M. Centres, and A. J. Ramirez-Pastor	
Phase diagram for the bisected-hexagonal-lattice five-state Potts antiferromagnet (<i>23 pages</i>)	032124
Jesús Salas	
Surface hopping propagator: An alternative approach to diffusion-influenced reactions (<i>17 pages</i>)	032125
Denis S. Grebenkov	
Reaching and violating thermodynamic uncertainty bounds in information engines (<i>6 pages</i>)	032126
Govind Paneru, Sandipan Dutta, Tsvi Tlusty, and Hyuk Kyu Pak	
Lifshitz phase transitions in a one-dimensional Gamma model (<i>8 pages</i>)	032127
Zi-An Liu, Tian-Cheng Yi, Jin-Hua Sun, Yu-Li Dong, and Wen-Long You	
Particles confined in arbitrary potentials with a class of finite-range repulsive interactions (<i>7 pages</i>)	032128
Avanish Kumar, Manas Kulkarni, and Anupam Kundu	
Brownian motion under noninstantaneous resetting in higher dimensions (<i>10 pages</i>)	032129
Anna S. Bodrova and Igor M. Sokolov	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 102, NUMBER 3

SEPTEMBER 2020

Solid Mechanics

- Non-Euclidean origami (*5 pages*) 031001(R)
 Scott Waitukaitis, Peter Dieleman, and Martin van Hecke

Fluid Dynamics

- Secondary radiation force between two closely spaced acoustic bubbles (*5 pages*) 031101(R)
 Gabriel Regnault, Cyril Mauger, Philippe Blanc-Benon, and Claude Inerra

Plasma Physics

- Influence of a nearby conductor on shape and length of a microwave plasma jet (*6 pages*) 031201(R)
 Yutian Yu, Kama Huang, and Li Wu

ARTICLES

Statistical Physics

- Thermodynamic collapse in a lattice-gas model for a two-component system of penetrable particles (*13 pages*) 032101
 Derek Frydel and Yan Levin
- von Neumann entropy and entropy production of a damped harmonic oscillator (*10 pages*) 032102
 G. A. Weiderpass and A. O. Caldeira
- Aging arcsine law in Brownian motion and its generalization (*7 pages*) 032103
 Takuma Akimoto, Toru Sera, Kosuke Yamato, and Kouji Yano
- Short-time dynamics of a tracer in an ideal gas (*12 pages*) 032104
 Fumiaki Nakai, Yuichi Masubuchi, and Takashi Uneyama
- Optimal finite-time bit erasure under full control (*12 pages*) 032105
 Karel Proesmans, Jannik Ehrich, and John Bechhoefer
- Classical dynamical coarse-grained entropy and comparison with the quantum version (*20 pages*) 032106
 Dominik Šafránek, Anthony Aguirre, and J. M. Deutsch
- Non-Markovian quantum dynamics: Extended correlated projection superoperators (*11 pages*) 032107
 Zhiqiang Huang (黄志强)
- Reflected fractional Brownian motion in one and higher dimensions (*13 pages*) 032108
 Thomas Vojta, Samuel Halladay, Sarah Skinner, Skirmantas Janušonis, Tobias Guggenberger, and Ralf Metzler
- Queueing theory of search processes with stochastic resetting (*16 pages*) 032109
 Paul C. Bressloff
- Spatial correlation functions of paracrystals with radial symmetry (*6 pages*) 032110
 Guan-Rong Huang, Yangyang Wang, Changwoo Do, and Wei-Ren Chen
- Reaction-diffusion and reaction-subdiffusion equations on arbitrarily evolving domains (*20 pages*) 032111
 E. Abad, C. N. Angstmann, B. I. Henry, A. V. McGann, F. Le Vot, and S. B. Yuste

(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 102, NUMBER 3
PARTS A AND B

CONTENTS

SEPTEMBER 2020

*The Table of Contents is a total listing of Parts A and B.
Part A consists of pages 030101(R)–032310, and Part B pages 032401–039902(E).*

PART A

RAPID COMMUNICATIONS

Statistical Physics

- Fluctuation relations for systems in a constant magnetic field (*7 pages*) 030101(R)
Alessandro Coretti, Lamberto Rondoni, and Sara Bonella
- Quantifying the quantum heat contribution from a driven superconducting circuit (*6 pages*) 030102(R)
Cyril Elouard, George Thomas, Olivier Maillet, J. P. Pekola, and A. N. Jordan
- Entropy production of an active particle in a box (*6 pages*) 030103(R)
Nitzan Razin
- Entanglement statistics in Markovian open quantum systems: A matter of mutation and selection (*6 pages*) 030104(R)
Federico Carollo and Carlos Pérez-Espigares
- Engineered swift equilibration of a Brownian gyrator (*5 pages*) 030105(R)
A. Baldassarri, A. Puglisi, and L. Sesta

Nonlinear Dynamics and Chaos

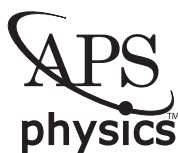
- Universal generation of devil's staircases near Hopf bifurcations via modulated forcing of nonlinear systems (*6 pages*) 030201(R)
Benjamin Lingnau, Kevin Shortiss, Fabien Dubois, Frank H. Peters, and Bryan Kelleher

Networks and Complex Systems

- Variational mean-field theory for training restricted Boltzmann machines with binary synapses (*6 pages*) 030301(R)
Haiping Huang

Polymers

- Kinetic concepts and local failure in the interfacial shear strength of epoxy-graphene nanocomposites (*6 pages*) 030501(R)
Spyros V. Kallivokas, Aristotelis P. Sgouros, and Doros N. Theodorou



Copyright 2020 by American Physical Society

(Continued)



2470-0045(202009)102:3:B;1-4

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).