

The Table of Contents is a total listing of Parts A and B.
Part A consists of pages 060101(R)–062323, and Part B pages 062401–063317.

PART A

RAPID COMMUNICATIONS

Statistical Physics

- Periodic three-body orbits in the Coulomb potential (*5 pages*) 060101(R)
Marija Šindik, Ayumu Sugita, Milovan Šuvakov, and V. Dmitrašinović
- Dynamical criticality in open systems: Nonperturbative physics, microscopic origin, and direct observation (*6 pages*) 060102(R)
Carlos Pérez-Espigares, Federico Carollo, Juan P. Garrahan, and Pablo I. Hurtado
- Hidden thermal structure in Fock space (*6 pages*) 060103(R)
Chushun Tian, Kun Yang, Ping Fang, Hai-Jun Zhou, and Jiao Wang

Nonlinear Dynamics and Chaos

- Spatiotemporal description of long-delayed systems: Ruling the dynamics (*5 pages*) 060201(R)
Francesco Marino and Giovanni Giacomelli

Networks and Complex Systems

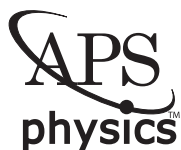
- Suppression effect on the Berezinskii-Kosterlitz-Thouless transition in growing networks (*5 pages*) 060301(R)
S. M. Oh, S.-W. Son, and B. Kahng

Biological Physics

- Dielectric spectrum of a DNA oligomer (*5 pages*) 060401(R)
Mithila V. Agnihotri and Sherwin J. Singer

Colloids, Complex Fluids, and Active Matter

- Current fluctuations of interacting active Brownian particles (*7 pages*) 060601(R)
Trevor GrandPre and David T. Limmer
- Polar flock in the presence of random quenched rotators (*5 pages*) 060602(R)
Rakesh Das, Manoranjan Kumar, and Shradha Mishra



Copyright 2018 by American Physical Society

(Continued)



2470-0045(201812)98:6:B;1-3

Films and Interfaces

- Roughness of the contact line on random self-affine rough surfaces (*5 pages*) 060801(R)
 Pavel Iliev, Nina Pesheva, and Stanimir Iliev

Granular Materials

- Spatial structure of quasilocalized vibrations in nearly jammed amorphous solids (*5 pages*) 060901(R)
 Masanari Shimada, Hideyuki Mizuno, Matthieu Wyart, and Atsushi Ikeda

Plasma Physics

- Investigating the influence of incident laser wavelength and polarization on particle acceleration and terahertz generation (*4 pages*) 061201(R)
 A. H. Woldegeorgis, B. Beleites, F. Ronneberger, R. Grosse, and A. Gopal

ARTICLES**Statistical Physics**

- Equivalent-neighbor percolation models in two dimensions: Crossover between mean-field and short-range behavior (*15 pages*) 062101
 Yunqing Ouyang, Youjin Deng, and Henk W. J. Blöte
- Percolation-based model for tunneling conductivity in systems of partially aligned cylinders (*8 pages*) 062102
 Avik P. Chatterjee
- Stability of quantum dynamics under constant Hamiltonian perturbations (*8 pages*) 062103
 Lars Knipschild and Jochen Gemmer
- Inverse Ising inference, hyperuniformity, and absorbing states in the Manna model (*6 pages*) 062104
 Thomas Machon
- Perturbing cyclic predator-prey systems: How a six-species coarsening system with nontrivial in-domain dynamics responds to sudden changes (*10 pages*) 062105
 Shadisadat Esmaeili, Barton L. Brown, and Michel Pleimling
- Dependence of efficiency on the nonlinear nature of a nanomachine (*6 pages*) 062106
 Lucianno A. C. A. Defaveri, Sílvia M. Duarte Queirós, and Welles A. M. Morgado
- Field-theoretic approach to the universality of branching processes (*11 pages*) 062107
 Rosalba Garcia-Millan, Johannes Pausch, Benjamin Walter, and Gunnar Pruessner
- Symbiotic contact process: Phase transitions, hysteresis cycles, and bistability (*5 pages*) 062108
 C. I. N. Sampaio Filho, T. B. dos Santos, N. A. M. Araújo, H. A. Carmona,
 A. A. Moreira, and J. S. Andrade Jr.
- Universality class of a displacive structural phase transition in two dimensions (*7 pages*) 062109
 Richard L. C. Vink
-  Diffusion enhancement of Brownian motors revealed by a solvable model (*11 pages*) 062110
 Ryo Kanada, Ryota Shinagawa, and Kazuo Sasaki

(Continued)

Theoretical analysis and computer simulation of dynamic processes for a driven diffusive two-lane system (<i>10 pages</i>)	062111
Qing-Yi Hao, Rui Jiang, Chao-Yun Wu, Ning Guo, Bing-Bing Liu, and Yunxin Zhang	
Statistical analysis of random trajectories of vibrated disks: Towards a macroscopic realization of Brownian motion (<i>12 pages</i>)	062112
Yann Lanoiselée, Guillaume Briand, Olivier Dauchot, and Denis S. Grebenkov	
Satisfied-defect, unsatisfied-cooperate: An evolutionary dynamics of cooperation led by aspiration (<i>12 pages</i>) . . .	062113
Ik Soo Lim and Peter Wittek	
Tensor-network study of a quantum phase transition on the Sierpiński fractal (<i>8 pages</i>)	062114
Roman Krcmar, Jozef Genzor, Yoju Lee, Hana Čenčariková, Tomotoshi Nishino, and Andrej Gendiar	
Semianalytical solution of the random-product problem of matrices and discrete-time random evolution (<i>5 pages</i>)	062115
David B. Saakian	
Percolation on an isotropically directed lattice (<i>9 pages</i>)	062116
Aurelio W. T. de Noronha, André A. Moreira, André P. Vieira, Hans J. Herrmann, José S. Andrade Jr., and Humberto A. Carmona	
Fractal dimensions and trajectory crossings in correlated random walks (<i>10 pages</i>)	062117
A. Dubey, J. Meibohm, K. Gustavsson, and B. Mehlig	
Jamming and percolation properties of random sequential adsorption with relaxation (<i>7 pages</i>)	062118
Sumanta Kundu, Nuno A. M. Araújo, and S. S. Manna	
Bose-Fermi duality in a quantum Otto heat engine with trapped repulsive bosons (<i>6 pages</i>)	062119
Jinfu Chen, Hui Dong, and Chang-Pu Sun	
Path integral approach to random neural networks (<i>16 pages</i>)	062120
A. Crisanti and H. Sompolinsky	
Active Brownian motion in two dimensions (<i>9 pages</i>)	062121
Urna Basu, Satya N. Majumdar, Alberto Rosso, and Grégory Schehr	
Chaotic temperature and bond dependence of four-dimensional Gaussian spin glasses with partial thermal boundary conditions (<i>11 pages</i>)	062122
Wenlong Wang, Mats Wallin, and Jack Lidmar	
Soft-particle lattice gas in one dimension: One- and two-component cases (<i>11 pages</i>)	062123
Derek Frydel and Yan Levin	
Simple property of heterogeneous aspiration dynamics: Beyond weak selection (<i>12 pages</i>)	062124
Lei Zhou, Bin Wu, Vítor V. Vasconcelos, and Long Wang	
Relation between a heterogeneous percolation model for cylinders and phase separation in the lattice fluid problem (<i>5 pages</i>)	062125
Avik P. Chatterjee and Claudio Grimaldi	
Temperature-field phase diagram of the two-dimensional dipolar Ising ferromagnet (<i>8 pages</i>)	062126
Hisato Komatsu, Yoshihiko Nonomura, and Masamichi Nishino	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 98, NUMBER 6

DECEMBER 2018

Minimal stochastic field equations for one-dimensional flocking (9 pages)	062127
E. Ó Laighléis, M. R. Evans, and R. A. Blythe	
Critical dynamical exponent of the two-dimensional scalar ϕ^4 model with local moves (6 pages)	062128
Wei Zhong, Gerard T. Barkema, Debabrata Panja, and Robin C. Ball	
Enhanced magnetoelectric effect of the exactly solved spin-electron model on a doubly decorated square lattice in the vicinity of a continuous phase transition (7 pages)	062129
Hana Čenčáriková and Jozef Strečka	
Percolation and jamming of random sequential adsorption samples of large linear k -mers on a square lattice (8 pages)	062130
M. G. Slutsii, L. Yu. Barash, and Yu. Yu. Tarasevich	
Coexistence of dipolar frustration and criticality in ferromagnets (8 pages)	062131
Sergio A. Cannas and Alessandro Vindigni	
Low-dissipation Carnot-like heat engines at maximum efficient power (6 pages)	062132
Varinder Singh and Ramandeep S. Johal	
Semiflexible polymer chains on the square lattice: Numerical study of critical exponents (11 pages)	062133
Ivan Živić, Sunčica Elezović-Hadžić, and Sava Milošević	
Assisted exchange models in one dimension (9 pages)	062134
Amit Kumar Chatterjee and P. K. Mohanty	
Gibbs Markov random fields with continuous values based on the modified planar rotator model (22 pages)	062135
Milan Žuković and Dionissios T. Hristopulos	
Spin-wave dynamics in nonlinear chains with spin-lattice interactions (5 pages)	062136
M. O. Sales, A. Ranciaro Neto, and F. A. B. F. de Moura	
Ground-state fidelity at first-order quantum transitions (9 pages)	062137
Davide Rossini and Ettore Vicari	
Critical Casimir interactions and percolation: The quantitative description of critical fluctuations (7 pages)	062138
Oleg A. Vasilyev	
Optimal parameters for anomalous-diffusion-exponent estimation from noisy data (7 pages)	062139
Yann Lanoiselée, Grzegorz Sikora, Aleksandra Grzesiek, Denis S. Grebenkov, and Agnieszka Wyłomańska	
Localized mode and nonergodicity of a harmonic oscillator chain (8 pages)	062140
Fumihiro Ishikawa and Synge Todo	
Adsorption of neighbor-avoiding walks on the simple cubic lattice (6 pages)	062141
C. J. Bradley, A. L. Owczarek, and T. Prellberg	
Percolation of sticks: Effect of stick alignment and length dispersity (6 pages)	062142
Yuri Yu. Tarasevich and Andrei V. Eserkepov	
Varieties of scaling regimes in hydromagnetic turbulence (11 pages)	062143
Abhik Basu and Jayanta K. Bhattacharjee	

(Continued)

Control of thermal conduction and rectification in a model of complex networks with two asymmetric parts (7 pages)	062144
Kezhao Xiong, Jie Zhou, Ming Tang, Chunhua Zeng, and Zonghua Liu	
Nonlinear Dynamics and Chaos	
Existence and dynamics of solitary waves in a two-dimensional Noguchi nonlinear electrical network (12 pages)	062201
Guy Roger Deffo, Serge Bruno Yamgoué, and François Beceau Pelap	
Dynamical localization in nonideal kicked rotors (7 pages)	062202
F. Revuelta, R. Chacón, and F. Borondo	
Vibrational resonance in an oscillator with an asymmetrical deformable potential (11 pages)	062203
U. E. Vincent, T. O. Roy-Layinde, O. O. Popoola, P. O. Adesina, and P. V. E. McClintock	
Double-period breathers in a driven and damped lattice (5 pages)	062205
G. Bel, B. S. Alexandrov, A. R. Bishop, and K. Ø. Rasmussen	
Resonant behavior and unpredictability in forced chaotic scattering (11 pages)	062206
Alexandre R. Nieto, Jesús M. Seoane, J. E. Alvarelllos, and Miguel A. F. Sanjuán	
Periodic and quasiperiodic dynamics of optoelectronic oscillators with narrow-band time-delayed feedback (8 pages)	062207
Yunjia Bao (包昀嘉), Ella Banyas, and Lucas Illing	
Mode generation via interaction (5 pages)	062208
Alexander M. Balk	
Amplitude death in globally coupled oscillators with time-scale diversity (7 pages)	062209
Wei Zou, Meng Zhan, and Jürgen Kurths	
Variability in Fermi-Pasta-Ulam-Tsingou arrays can prevent recurrences (10 pages)	062210
Heather Nelson, Mason A. Porter, and Bhaskar Choubey	
Resonator neuron and triggering multipulse excitability in laser with injected signal (11 pages)	062211
A. Dolcemascolo, B. Garbin, B. Peyce, R. Veltz, and S. Barland	
Bifurcation-aware optimization and robust synchronization of coupled laser diodes (12 pages)	062212
Jonas Otten, Jens Müller, and Martin Mönnigmann	
Dissipative magnetic breathers induced by time-modulated voltages (9 pages)	062213
Alejandro O. Leon, Marcel G. Clerc, and Dora Altbir	
Replication of dissipative vortices modeled by the complex Ginzburg-Landau equation (8 pages)	062214
Bogdan A. Kochetov and Vladimir R. Tuz	
Gap solitons and forced snaking (22 pages)	062215
Benjamin C. Ponedel and Edgar Knobloch	
Selection and control of pathways by using externally adjustable noise on a stochastic cubic autocatalytic chemical system (8 pages)	062216
Jean-Sébastien Gagnon, David Hochberg, and Juan Pérez-Mercader	

(Continued)

Chimera states in networks of type-I Morris-Lecar neurons (<i>10 pages</i>)	062217
Ali Calim, Philipp Hövel, Mahmut Ozer, and Muhammet Uzuntarla	
Semiclassical theory of out-of-time-order correlators for low-dimensional classically chaotic systems (<i>12 pages</i>)	062218
Rodolfo A. Jalabert, Ignacio García-Mata, and Diego A. Wisniacki	
First-order phase transitions in the Kuramoto model with compact bimodal frequency distributions (<i>15 pages</i>) . . .	062219
Bastian Pietras, Nicolás Deschle, and Andreas Daffertshofer	
Normal mode oscillations of a nonlocal composite matter wave soliton (<i>8 pages</i>)	062220
Mario Salerno and Bakhtiyor B. Baizakov	
Twisted states in low-dimensional hypercubic lattices (<i>8 pages</i>)	062221
Seungjae Lee, Young Sul Cho, and Hyunsuk Hong	
Solitary synchronization waves in distributed oscillator populations (<i>7 pages</i>)	062222
L. A. Smirnov, G. V. Osipov, and A. Pikovsky	
Polariton superregular breathers in a resonant erbium-doped fiber (<i>9 pages</i>)	062223
Yang Ren, Chong Liu, Zhan-Ying Yang, and Wen-Li Yang	
Delay controls chimera relay synchronization in multiplex networks (<i>9 pages</i>)	062224
Jakub Sawicki, Iryna Omelchenko, Anna Zakharova, and Eckehard Schöll	
Networks and Complex Systems	
Statistical analysis of articulation points in configuration model networks (<i>23 pages</i>)	062301
Ido Tishby, Ofer Biham, Reimer Kühn, and Eytan Katzav	
Influencers identification in complex networks through reaction-diffusion dynamics (<i>15 pages</i>)	062302
Flavio Iannelli, Manuel S. Mariani, and Igor M. Sokolov	
Epidemic spreading on time-varying multiplex networks (<i>13 pages</i>)	062303
Quan-Hui Liu, Xinyue Xiong, Qian Zhang, and Nicola Perra	
Towards a classification of planar maps (<i>9 pages</i>)	062304
Alexandre Diet and Marc Barthelemy	
Social influence preserves cooperative strategies in the conditional cooperator public goods game on a multiplex network (<i>14 pages</i>)	062305
James M. Allen, Anne C. Skeldon, and Rebecca B. Hoyle	
Computational landscape of user behavior on social media (<i>12 pages</i>)	062306
David Darmon, William Rand, and Michelle Girvan	
Interplay of network structure and dynamics in functional organization of the visual cortex (<i>9 pages</i>)	062307
Yudy Carolina Daza C., Pablo M. Gleiser, and Francisco A. Tamarit	
Bond and site color-avoiding percolation in scale-free networks (<i>12 pages</i>)	062308
Andrea Kadović, Sebastian M. Krause, Guido Caldarelli, and Vinko Zlatic	
Spin-glass model for the <i>C</i> -dismantling problem (<i>10 pages</i>)	062309
Shao-Meng Qin	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 98, NUMBER 6

DECEMBER 2018

 Physics-based modeling and data representation of pairwise interactions among pedestrians (16 pages)	062310
Alessandro Corbetta, Jasper A. Meeusen, Chung-min Lee, Roberto Benzi, and Federico Toschi	
 Pedestrian stepping dynamics in single-file movement (9 pages)	062311
Yi Ma, Ying Ying Sun, Eric Wai Ming Lee, and Richard Kowk Kit Yuen	
Feedback through graph motifs relates structure and function in complex networks (25 pages)	062312
Yu Hu, Steven L. Brunton, Nicholas Cain, Stefan Mihalas, J. Nathan Kutz, and Eric Shea-Brown	
Mechanisms of dimensionality reduction and decorrelation in deep neural networks (9 pages)	062313
Haiping Huang	
Disassortativity of percolating clusters in random networks (7 pages)	062314
Shogo Mizutaka and Takehisa Hasegawa	
Epidemic spreading and aging in temporal networks with memory (9 pages)	062315
Michele Tizzani, Simone Lenti, Enrico Ubaldi, Alessandro Vezzani, Claudio Castellano, and Raffaella Burioni	
Topologically robust zero-sum games and Pfaffian orientation: How network topology determines the long-time dynamics of the antisymmetric Lotka-Volterra equation (23 pages)	062316
Philipp M. Geiger, Johannes Knebel, and Erwin Frey	
Controlling the uncertain response of real multiplex networks to random damage (12 pages)	062317
Francesco Coghi, Filippo Radicchi, and Ginestra Bianconi	
Effects of hidden nodes on the reconstruction of bidirectional networks (9 pages)	062318
Emily S. C. Ching and P. H. Tam	
Natural emergence of a core structure in networks via clique percolation (8 pages)	062319
A. Melka, N. Slater, A. Mualem, and Y. Louzoun	
Social contagions with communication channel alternation on multiplex networks (10 pages)	062320
Wei Wang, Ming Tang, H. Eugene Stanley, and Lidia A. Braunstein	
Estimating network structure from unreliable measurements (17 pages)	062321
M. E. J. Newman	
Epidemic spreading with awareness diffusion on activity-driven networks (11 pages)	062322
Ping Hu, Li Ding, and Xuming An	
Individual-level evolutions manifest population-level scaling in complex supply networks (9 pages)	062323
Likwan Cheng and Bryan W. Karney	

PART B

Biological Physics

Stochastic protein multimerization, activity, and fitness (15 pages)	062401
Kyle Hagner, Sima Setayeshgar, and Michael Lynch	
Mechanical perspective on chemotaxis (18 pages)	062402
Chiara Giverso and Luigi Preziosi	

(Continued)

 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).

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 98, NUMBER 6

DECEMBER 2018

Mechanical-energy-based amplifiers for probing interactions of DNA with metal ions (8 pages)	062403
Jack Freeland, Prabhat Khadka, and Yong Wang	
Quantitative analysis of a transient dynamics of a gene regulatory network (19 pages)	062404
JaeJun Lee and Julian Lee	
Jacobian-determinant method of identifying phase singularity during reentry (9 pages)	062405
Teng-Chao Li, De-Bei Pan, Kuangshi Zhou, Ruhong Jiang, Chenyang Jiang, Bo Zheng, and Hong Zhang	
Biological version of Braess' paradox arising from perturbed homeostasis (7 pages)	062406
Graham M. Donovan	
Dynamical disparity between hydration shell water and RNA in a hydrated RNA system (10 pages)	062407
Debsindhu Bhowmik, P. Ganesh, Bobby G. Sumpter, and Monojoy Goswami	
Modeling of drug diffusion in a solid tumor leading to tumor cell death (16 pages)	062408
Aminur Rahman, Souparno Ghosh, and Ranadip Pal	
Percolation strategy to improve the production of plants with high pathogen susceptibility (10 pages)	062409
J. E. Ramírez, E. Molina-Gayosso, J. Lozada-Lechuga, L. M. Flores-Rojas, M. I. Martínez, and A. Fernández Téllez	
Plasticity of the truth table of low-leakage genetic logic gates (9 pages)	062410
S. Smith and R. Grima	
Micromechanical theory of strain stiffening of biopolymer networks (14 pages)	062411
Robbie Rens, Carlos Villarroel, Gustavo Düring, and Edan Lerner	
Entrainment as a means of controlling phase waves in populations of coupled oscillators (9 pages)	062412
Jonas S. Juul, Sandeep Krishna, and Mogens H. Jensen	
Betweenness centrality in multiplex brain network during mental task evaluation (9 pages)	062413
Vladimir V. Makarov, Maxim O. Zhuravlev, Anastasija E. Runnova, Pavel Protasov, Vladimir A. Maksimenko, Nikita S. Frolov, Alexander N. Pisarchik, and Alexander E. Hramov	
Finite-size effects for spiking neural networks with spatially dependent coupling (18 pages)	062414
Si-Wei Qiu and Carson C. Chow	
Polymers	
Force spectroscopy analysis in polymer translocation (7 pages)	062501
Alessandro Fiasconaro and Fernando Falo	
Shear-stress relaxation in free-standing polymer films (13 pages)	062502
G. George, I. Kriuchevskiy, H. Meyer, J. Baschnagel, and J. P. Wittmer	
Crosslinker mobility weakens transient polymer networks (8 pages)	062503
Yuval Mulla and Gijsje H. Koenderink	
Colloids, Complex Fluids, and Active Matter	
Optochemical disequilibrium to measure biomolecule charge (9 pages)	062601
Friederike M. Möller, Michael Kieß, Christof Mast, and Dieter Braun	

(Continued)

Exploring the validity of time-concentration superposition in glassy colloids: Experiments and simulations (<i>11 pages</i>)	062602
Xiaoguang Peng, J. Galen Wang, Qi Li, Dongjie Chen, Roseanna N. Zia, and Gregory B. McKenna	
Crossover between parabolic and hyperbolic scaling, oscillatory modes, and resonances near flocking (<i>15 pages</i>)	062603
L. L. Bonilla and C. Trenado	
Hydrodynamic theory of flocking in the presence of quenched disorder (<i>19 pages</i>)	062604
John Toner, Nicholas Guttenberg, and Yuhai Tu	
Long-time dynamics and hydrodynamic correlations in quasi-two-dimensional anisotropic colloidal mixtures (<i>9 pages</i>)	062605
José Ramón Villanueva-Valencia, Jesús Santana-Solano, Erick Sarmiento-Gómez, Salvador Herrera-Velarde, José Luis Arauz-Lara, and Ramón Castañeda-Priego	
Universal diagram for the kinetics of particle deposition in microchannels (<i>12 pages</i>)	062606
Cesare M. Cejas, Fabrice Monti, Marine Truchet, Jean-Pierre Burnouf, and Patrick Tabeling	
Irreversible transition of amorphous and polycrystalline colloidal solids under cyclic deformation (<i>9 pages</i>)	062607
Pritam Kumar Jana, Mikko J. Alava, and Stefano Zapperi	
Remote-controlled deposit of superparamagnetic colloidal droplets (<i>5 pages</i>)	062608
Alexis Darras, Florence Mignolet, Nicolas Vandewalle, and Geoffroy Lumay	
Transitional bulk-solutal Marangoni instability in sessile drops (<i>7 pages</i>)	062609
Alexis Darras, Nicolas Vandewalle, and Geoffroy Lumay	
Non-Gaussian noise without memory in active matter (<i>13 pages</i>)	062610
Étienne Fodor, Hisao Hayakawa, Julien Tailleur, and Frédéric van Wijland	
Simulation study of the electrical tunneling network conductivity of suspensions of hard spherocylinders (<i>7 pages</i>)	062611
Arshia Atashpendar, Sarthak Arora, Alexander D. Rahm, and Tanja Schilling	
Phonon transport and vibrational excitations in amorphous solids (<i>18 pages</i>)	062612
Hideyuki Mizuno and Atsushi Ikeda	
Formation of spiral coils among self-propelled chains (<i>10 pages</i>)	062613
Yao-Kuan Wang, Chien-Jung Lo, and Wei-Chang Lo	
Emergence of collective dynamics of gold nanoparticles in an optical vortex lattice (<i>8 pages</i>)	062614
R. Delgado-Buscalioni, M. Meléndez, J. Luis-Hita, M. I. Marqués, and J. J. Sáenz	
Diffusiophoresis as ruling effect: Influence of organic salts on thermodiffusion of iron oxide nanoparticles (<i>9 pages</i>)	062615
André Luiz Sehnem, Antônio Martins Figueiredo Neto, Doreen Niether, and Simone Wiegand	
Superlattice formation in colloidal nanocrystal suspensions: Hard-sphere freezing and depletion effects (<i>9 pages</i>)	062616
Samuel L. Brown, Vijay D. Shah, Maria V. Morrell, Mitchell Zubich, Alexander Wagner, Alan R. Denton, and Erik K. Hobbie	
Volume-shrinking kinetics of transient gels as a consequence of dynamic interplay between phase separation and mechanical relaxation (<i>19 pages</i>)	062617
Takehito Koyama and Hajime Tanaka	

(Continued)

Propagating wave in the flock of self-propelled particles (<i>6 pages</i>)	062618
Waipot Ngamsaad and Suthep Suantai	

Stochastic thermodynamics of a confined colloidal suspension under shear flow (<i>13 pages</i>)	062619
Sascha Gerloff and Sabine H. L. Klapp	

Liquid Crystals

Effect of Sm-A short-range order on the activation energies of translational and rotational viscosities of nematic liquid crystals with highly polar molecules (<i>7 pages</i>)	062701
M. Praveen Kumar, D. Venkata Sai, and Surajit Dhara	

Films and Interfaces

Four stages of droplet spreading on a spherical substrate and in a spherical cavity: Surface tension versus line tension and viscous dissipation versus frictional dissipation (<i>13 pages</i>)	062801
Masao Iwamatsu	

Granular Materials

Measurements of the velocity distribution for granular flow in a Couette cell (<i>10 pages</i>)	062901
H. T. Fabich, T. I. Brox, D. Clarke, J. D. Seymour, S. L. Codd, P. Galvosas, J. Brown, A. J. Sederman, and D. J. Holland	

Avalanches of grains with inhomogeneous distribution of inner mass (<i>5 pages</i>)	062902
M. Piva, R. G. Martino, J.-C. Géminard, and M. A. Aguirre	

 Mechanical equilibrium of aggregates of dielectric spheres (<i>4 pages</i>)	062903
A. F. V. Matias, T. Shinbrot, and N. A. M. Araújo	

Solid Mechanics

Protocol dependence of plasticity in ultrastable amorphous solids (<i>7 pages</i>)	063001
Edan Lerner, Itamar Procaccia, Corrado Rainone, and Murari Singh	

Supershear bursts in the propagation of a tensile crack in linear elastic material (<i>8 pages</i>)	063002
Fabian Barras, René Carpaïj, Philippe H. Geubelle, and Jean-François Molinari	

Self-propulsive swimmers: Two linked acoustic radiating spheres (<i>14 pages</i>)	063003
M. Rajabi and A. Hajiahmadi	

Tunable surface morphology via patterned cavities in soft materials (<i>5 pages</i>)	063004
Xiangbiao Liao, Takumi Nagakura, Youlong Chen, Liangliang Zhu, Xiaoyang Shi, Akio Yonezu, Xi Chen, and Hang Xiao	

Simple theory of viscosity in liquids (<i>9 pages</i>)	063005
Jean Bellissard and Takeshi Egami	

Thermodynamic dislocation theory: Torsion of bars (<i>5 pages</i>)	063006
K. C. Le, Y. Piao, and T. M. Tran	

Fluid Dynamics

Hyperuniform flow fields resulting from hyperuniform configurations of circular disks (<i>9 pages</i>)	063101
Zhenya Ding, Yu Zheng, Yaopengxiao Xu, Yang Jiao, and Wei Li	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 98, NUMBER 6

DECEMBER 2018

Biaxial fluid oscillations can propel a microcapsule swimmer in an arbitrary direction (<i>12 pages</i>) Takeru Morita, Toshihiro Omori, and Takuji Ishikawa	063102
Electromagnetic field orientation and characteristics governed hydrodynamics within pendent droplets (<i>11 pages</i>) Purbarun Dhar, Vivek Jaiswal, and A. R. Harikrishnan	063103
Nonequilibrium solid-solid phase transition in a lattice of liquid jets (<i>7 pages</i>) Fabrizio Croccolo, Stefano Castellini, Frank Scheffold, and Alberto Vailati	063104
Role of symmetry in driven propulsion at low Reynolds number (<i>12 pages</i>) Johannes Sachs, Konstantin I. Morozov, Oded Kenneth, Tian Qiu, Nico Segreto, Peer Fischer, and Alexander M. Leshansky	063105
Experimental modulation and theoretical simulation of zonal oscillation for electrostatically levitated metallic droplets at high temperatures (<i>12 pages</i>) H. P. Wang, M. X. Li, P. F. Zou, X. Cai, L. Hu, and B. Wei	063106
Relative velocities in bidisperse turbulent aerosols: Simulations and theory (<i>10 pages</i>) Akshay Bhatnagar, K. Gustavsson, B. Mehlig, and Dhrubaditya Mitra	063107
Fundamental solution of unsteady Stokes equations and force on an oscillating sphere near a wall (<i>22 pages</i>) Itzhak Fouxon and Alexander Leshansky	063108
Oscillating convection and reversal flow in connected cavities (<i>9 pages</i>) Yue Xiao, Jianjun Tao, Xue Ma, and Xiangming Xiong	063109
Nuclear-magnetic-resonance relaxation rates for fluid confined to closed, channel, or planar pores (<i>14 pages</i>) D. A. Faux and P. J. McDonald	063110
Response of monoflagellate pullers to a shearing flow: A simulation study of microswimmer guidance (<i>12 pages</i>) Benjamin J. Walker, Kenta Ishimoto, Richard J. Wheeler, and Eamonn A. Gaffney	063111
Probabilistic structure of the geodynamo (<i>6 pages</i>) Christian R. Scullard and Bruce A. Buffett	063112
Plasma Physics	
Multiple timescales in a strongly coupled dusty plasma revealed by survival-function analysis (<i>6 pages</i>) Chun-Shang Wong, J. Goree, and Zach Haralson	063201
Signatures of fluid and kinetic properties in the energy distributions of multicharged Ta ions from nanosecond-laser-heated plasma (<i>11 pages</i>) F. Gobet, M. Comet, J.-R. Marquès, V. Méot, X. Raymond, M. Versteegen, J.-L. Henares, and O. Morice	063202
Phonon spectra of two-dimensional liquid dusty plasmas on a one-dimensional periodic substrate (<i>7 pages</i>) W. Li, D. Huang, K. Wang, C. Reichhardt, C. J. O. Reichhardt, M. S. Murillo, and Yan Feng	063203
Structures and diffusion of two-dimensional dusty plasmas on one-dimensional periodic substrates (<i>7 pages</i>) Kang Wang, Wei Li, Dong Huang, C. Reichhardt, C. J. O. Reichhardt, M. S. Murillo, and Yan Feng	063204
Electrostatic energy and phonon properties of Yukawa crystals (<i>7 pages</i>) A. Kozhberov	063205

(Continued)

 Characterizing plasma conditions in radiatively heated solid-density samples with x-ray Thomson scattering (<i>9 pages</i>)	063206
A. M. Saunders, B. Lahmann, G. Sutcliffe, J. A. Frenje, R. W. Falcone, and T. Döppner	
Computational Physics	
Efficient implementation of the Wang-Landau algorithm for systems with length-scalable potential energy functions (<i>9 pages</i>)	063301
Santosh Kumar, Girish Kumar, Rohit S. Chandramouli, and Shashank Anand	
Finite-size estimates of Kirkwood-Buff and similar integrals (<i>7 pages</i>)	063302
Andrés Santos	
Policy-guided Monte Carlo: Reinforcement-learning Markov chain dynamics (<i>16 pages</i>)	063303
Troels Arnfred Bojesen	
Optical admittance method for light-matter interaction in lossy planar resonators (<i>13 pages</i>)	063304
Pyrý Kivisaari, Mikko Partanen, and Jani Oksanen	
Probabilistic scheme for joint parameter estimation and state prediction in complex dynamical systems (<i>19 pages</i>)	063305
Sara Pérez-Vieites, Inés P. Mariño, and Joaquín Míguez	
Cluster representations and the Wolff algorithm in arbitrary external fields (<i>8 pages</i>)	063306
Jaron Kent-Dobias and James P. Sethna	
Crystal nucleation along an entropic pathway: Teaching liquids how to transition (<i>10 pages</i>)	063307
Caroline Desgranges and Jerome Delhommelle	
Simplification of the molecular dynamics that preserves thermodynamics (<i>5 pages</i>)	063308
Sebastián Carrasco, José Rogan, and Juan Alejandro Valdivia	
Saturated packings of convex anisotropic objects under random sequential adsorption protocol (<i>6 pages</i>)	063309
Karol Haiduk, Piotr Kubala, and Michał Cieřła	
Random sequential adsorption of unoriented rectangles at saturation (<i>6 pages</i>)	063310
Wojciech Kasperek, Piotr Kubala, and Michał Cieřła	
Half-range lattice Boltzmann models for the simulation of Couette flow using the Shakhov collision term (<i>20 pages</i>)	063311
Victor E. Ambruș and Victor Sofonea	
 Predictive density gradient theory based on nonlocal density functional theory (<i>10 pages</i>)	063312
P. Rehner and J. Gross	
Improved fully implicit discrete-velocity method for efficient simulation of flows in all flow regimes (<i>21 pages</i>)	063313
L. M. Yang, Z. Chen, C. Shu, W. M. Yang, J. Wu, and L. Q. Zhang	
Simplified multiphase lattice Boltzmann method for simulating multiphase flows with large density ratios and complex interfaces (<i>18 pages</i>)	063314
Z. Chen, C. Shu, D. Tan, X. D. Niu, and Q. Z. Li	
Molecular dice: Random number generators á la Boltzmann (<i>13 pages</i>)	063315
Samarth Agrawal, Soumyadeep Bhattacharya, and Santosh Ansumali	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 98, NUMBER 6

DECEMBER 2018

Immersed-finite-element method for deformable particle suspensions in viscous and viscoelastic media (<i>17 pages</i>)	063316
Amir Saadat, Christopher J. Guido, Gianluca Iaccarino, and Eric S. G. Shaqfeh	
Higher-order correlation functions in disordered media: Computational algorithms and application to two-phase heterogeneous materials (<i>15 pages</i>)	063317
Hessam Malmir, Muhammad Sahimi, and Yang Jiao	