

The Table of Contents is a total listing of Parts A and B.
Part A consists of pages L062101–064228, and Part B pages 064301–069901(E).

PART A

LETTERS

Statistical Physics

Kinetic equality for susceptibility and dynamical activity (5 pages).....	L062101
Takaaki Monnai	
Local interactions in active matter are reinforced by spatial structure (5 pages).....	L062102
Eighdi Aung, James E. McClure, and Nicole Abaid	
Nonstochastic quantum engine (8 pages)	L062103
André Neves Ribeiro	
Finite-size Nagle-Kardar model: Casimir force (5 pages)	L062104
Daniel Dantchev, Nicholay Tonchev, and Joseph Rudnick	
From an exact solution of dynamics in the vicinity of hard walls to extreme-value statistics of non-Markovian processes (6 pages).....	L062105
Thibaut Arnoulx de Pirey	
Emergent Nambu-Goldstone phase of $\mathbb{Z}_q$ model from dynamics (6 pages).....	L062106
Minghui Hu, Yanan Sun, Dajun Zhang, and Jian-Ping Lv	
Geometrical interpretation of critical exponents (5 pages).....	L062107
Henrique A. Lima, Edwin E. Mozo Luis, Ismael S. S. Carrasco, Alex Hansen, and Fernando A. Oliveira	

Nonlinear Dynamics and Chaos

Effects of stickiness on the quantum states of strongly chaotic open systems (5 pages).....	L062201
Miguel A. Prado Reynoso, Edson M. Signor, Sandra D. Prado, and Lea F. Santos	

Networks and Complex Systems

Expected and unexpected routes to synchronization in a system of swarmalators (7 pages)	L062301
Steve J. Kongni, Thierry Njougouo, Patrick Louodop, Robert Tchitnga, Fernando F. Ferreira, and Hilda A. Cerdeira	



(Continued)



2470-0045(202412)110:6:A;1-1

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 110, NUMBER 6

DECEMBER 2024

Polymers

- Scaling theory of fibrin polymerization (*6 pages*) L062501
Sergey Panyukov

Colloids, Complex Fluids, and Active Matter

- Depinning transition of self-propelled particles (*7 pages*) L062601
Arthur V. Straube and Felix Höfling

-  Anisotropic cage evolution in quasi-two-dimensional colloidal fluids (*6 pages*) L062602
Noman Hanif Barbhuiya and Chandan K. Mishra

Films and Interfaces

- Brownian friction dynamics: Fluctuations in sliding distance (*6 pages*) L062801
R. Xu, F. Zhou, and B. N. J. Persson

Solid Mechanics

- Path differences between quasistatic and fatigue cracks in anisotropic media (*5 pages*) L063001
Xinyuan Zhai, Thomas Corre, Ataollah Mesgarnejad, Alain Karma, and Véronique Lazarus

Fluid Dynamics

- Rayleigh-Taylor instability in multiple finite-thickness fluid layers (*7 pages*) L063101
Prashant Sharma

Plasma Physics

- Increased neutron yield observed in indirect-drive double-shell experiments using high-energy x-ray preheat at the Shenguang laser facility (*6 pages*) L063201
J. W. Li, J. Yan, C. S. Wu, Z. S. Dai, L. F. Wang, J. Qi, B. L. Chen, X. Zhang, G. Li, L. F. Jing, Z. J. Chen, W. Jiang, W. L. Shang, S. Y. Tu, Y. S. Liu, J. Zhang, J. M. Yang, W. H. Ye, W. D. Zheng, M. Wang, W. B. Pei, S. P. Zhu, and X. T. He

ARTICLES

Statistical Physics

- Rationally independent free fermions with local hopping (*8 pages*) 064101
Jonathon Riddell and Bruno Bertini
- Data-driven physics-based modeling of pedestrian dynamics (*12 pages*) 064102
Caspar A. S. Pouw, Geert G. M. van der Vleuten, Alessandro Corbetta, and Federico Toschi
- Lattice-gas model of methane and carbon dioxide sI clathrate hydrates: A comprehensive study using analytical cluster approximation and Monte Carlo simulations (*15 pages*) 064103
P. Longone, F. O. Sanchez-Varretti, F. Bulnes, and A. J. Ramirez-Pastor
- Short-time large deviation of constrained random acceleration process (*11 pages*) 064104
Hanshuang Chen, Lulu Tian, and Guofeng Li

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 110, NUMBER 6

DECEMBER 2024

Universal dynamics of a passive particle driven by Brownian motion (<i>18 pages</i>)	064105
Urna Basu, P. L. Krapivsky, and Satya N. Majumdar	
Stochastic parameter optimization analysis of dynamical quantum critical phenomena in the long-range transverse-field Ising chain (<i>14 pages</i>)	064106
Sora Shiratani and Synge Todo	
Charging a quantum battery mediated by parity-deformed fields (<i>11 pages</i>)	064107
B. Mojaveri, R. Jafarzadeh Bahrbeig, and M. A. Fasihi	
Anomalous distribution of magnetization in an Ising spin glass with correlated disorder (<i>9 pages</i>)	064108
Hidetoshi Nishimori	
Subdynamics in a many-body system of quantum particles (<i>10 pages</i>)	064109
Victor F. Los	
Run-and-tumble particle with saturating rates (<i>16 pages</i>)	064110
Kavita Jain and Sakuntala Chatterjee	
Negative large deviations of the front velocity of N -particle branching Brownian motion (<i>10 pages</i>)	064111
Baruch Meerson and Pavel V. Sasorov	
Multifractality and excited-state quantum phase transition in ferromagnetic spin-1 Bose-Einstein condensates (<i>13 pages</i>)	064112
Zhen-Xia Niu and Qian Wang	
Path integral approach for time-dependent Hamiltonians with applications to derivative pricing (<i>12 pages</i>)	064113
Mark Stedman and Luca Capriotti	
Rigidity-induced critical points (<i>17 pages</i>)	064114
Y. Grabovsky and L. Truskinovsky	
 Using test particle sum rules to construct accurate functionals in classical density functional theory (<i>11 pages</i>)	064115
Melih Gül, Roland Roth, and Robert Evans	
Neural units with time-dependent functionality (<i>7 pages</i>)	064116
Stephen Whitelam	
Boltzmann-Poisson equation with a central body: Analytical solutions in one and two dimensions (<i>24 pages</i>)	064117
Pierre-Henri Chavanis	
Thermodynamics and criticality of supersymmetric spin chains of Haldane-Shastry type (<i>15 pages</i>)	064118
Federico Finkel and Artemio González-López	
Trapping statistics in growing self-interacting self-avoiding walks: Square versus honeycomb lattices (<i>10 pages</i>)	064120
Christophe Laforge, Hayk Mikayelyan, and Patrick Senet	
Principal component analysis of absorbing state phase transitions (<i>17 pages</i>)	064121
Cristiano Muzzi, Ronald Santiago Cortes, Devendra Singh Bhakuni, Asja Jelić, Andrea Gambassi, Marcello Dalmonte, and Roberto Verdel	
α Annealing of ant colony optimization in the infinite-range Ising model (<i>12 pages</i>)	064122
Shintaro Mori, Taiyo Shimizu, Masato Hisakado, and Kazuaki Nakayama	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 110, NUMBER 6

DECEMBER 2024

Spring pair method of finding saddle points using the minimum energy path as a compass (<i>11 pages</i>)	064123
Gang Cui and Kai Jiang	
Robustness and classical proxy of entanglement in variants of quantum walks (<i>13 pages</i>)	064124
Christopher Mastandrea and Chih-Chun Chien	
Behavior of the generalized Brownian motion in a parabolic potential: Effect of the field on the bath (<i>11 pages</i>)	064125
Pedro J. Colmenares	
Inference of entropy production for periodically driven systems (<i>9 pages</i>)	064126
Pedro E. Harunari, Carlos E. Fiore, and Andre C. Barato	
Templating aggregation (<i>7 pages</i>)	064127
P. L. Krapivsky and S. Redner	
Urban topology and dynamics can assess the importance of green areas (<i>10 pages</i>)	064128
Jacopo Moi, Leonardo Chiesi, Gherardo Chirici, Saverio Francini, Costanza Borghi, Paolo Costa, Bianca Galmarini, and Guido Caldarelli	
 Full distribution of the ground-state energy of potentials with weak disorder (<i>9 pages</i>)	064129
Naftali R. Smith	
Criticality in the duration of the quasistationary state of the d -dimensional α -Heisenberg ferromagnet (<i>6 pages</i>)	064131
Antonio Rodríguez, Fernando D. Nobre, and Constantino Tsallis	
Condensate-induced organization of the mass profile and emergent power laws in the Takayasu aggregation model (<i>7 pages</i>)	064132
Reya Negi, Rajiv G. Pereira, and Mustansir Barma	
Effect of quenched heterogeneity on creep lifetimes of disordered materials (<i>19 pages</i>)	064133
Juan Carlos Verano-Espitia, Jérôme Weiss, David Amitrano, Tero Mäkinen, and Mikko Alava	
Self-assembled clusters of magnetically tilted dipoles (<i>12 pages</i>)	064134
P. D. S. de Lima, A. Lyons, A. Irannezhad, J. M. de Araújo, S. Hutzler, and M. S. Ferreira	
Dynamical structures in phase-separating nonreciprocal polar active mixtures (<i>20 pages</i>)	064135
Kim L. Kreienkamp and Sabine H. L. Klapp	
Nonequilibrium potential for linear energy harvester and work relationships (<i>9 pages</i>)	064136
Bruno Combi, Martín E. Giuliano, Alejandro D. Sánchez, and Matías G. dell'Erba	
 Minimal framework for optimizing vaccination protocols targeting highly mutable pathogens (<i>18 pages</i>)	064137
Saeed Mahdisoltani, Pranav Murugan, Arup K. Chakraborty, and Mehran Kardar	
Nonuniversality for crossword puzzle percolation (<i>7 pages</i>)	064138
Alexander K. Hartmann	
Logarithmic finite-size scaling of the four-dimensional Ising model (<i>7 pages</i>)	064139
Zhiyi Li, Tianning Xiao, Zongzheng Zhou, Sheng Fang, and Youjin Deng	

(Continued)

	Double power-law universal scaling function for the distribution of waiting times in labquake catalogs (9 pages)	064140
Honglian Li, Emma Valdés, and Eduard Vives		
	Self-organized critical dynamic on the Sierpinski carpet (9 pages)	064141
Viviana Gómez and Gabriel Téllez		
	Scaling analysis of mosaic phase separation in Li-ion batteries (11 pages)	064142
Debbie Zhuang and Martin Z. Bazant		
	Reliability of correlation-length measurements: A comparative study (21 pages)	064143
Aleksandr V. Kukharskii and Sergey G. Abaimov		
	Critical and tricritical behavior of the $d = 3$ Blume-Capel model: Results from small-scale Monte Carlo simulations (12 pages)	064144
Leïla Moueddene, Nikolaos G. Fytas, and Bertrand Berche		
	Semi-Markov processes in open quantum systems. III. Large deviations of first-passage-time statistics (12 pages)	064145
Fei Liu, Shihao Xia, and Shanhe Su		
	Kinetic theories of state- and generation-dependent cell populations (20 pages)	064146
Mingtao Xia and Tom Chou		
	Partition sum of thermal, underconstrained systems (18 pages)	064147
Cheng-Tai Lee and Matthias Merkel		
	Conditioning the complexity of random landscapes on marginal optima (21 pages)	064148
Jaron Kent-Dobias		
	Defect versus defect: Stationary states of single-file marching in periodic landscapes with road blocks (10 pages)	064149
Atri Goswami, Rohn Chatterjee, and Sudip Mukherjee		
	Prethermalization in aperiodically driven classical spin systems (6 pages)	064150
Sajag Kumar and Sayan Choudhury		
	Learning entropy production from underdamped Langevin trajectories (13 pages)	064151
Jinghao Lyu, Kyle J. Ray, and James P. Crutchfield		
	Path-integral approach to mutual information calculation for nonlinear channel with small dispersion at large signal-to-noise ratio (24 pages)	064152
A. V. Reznichenko and V. O. Guba		
	Current fluctuations in the Dyson gas (16 pages)	064153
Rahul Dandekar, P. L. Krapivsky, and Kirone Mallick		
	Magnetic exponent for the long-range bond-disordered Potts model (11 pages)	064154
Ivan Lecce, Marco Picco, and Raoul Santachiara		
	Monte Carlo study of the two-dimensional kinetic Ising model under a nonantisymmetric magnetic field (8 pages)	064155
Zeynep Demir Vatansever, Erol Vatansever, Andreas Berger, Alexandros Vasilopoulos, and Nikolaos G. Fytas		

(Continued)

Critical fluctuations at a finite-time dynamical phase transition (<i>12 pages</i>)	064156
Nalina Vadakkayil, Massimiliano Esposito, and Jan Meibohm	
Nonlinear Dynamics and Chaos	
Families of Hamiltonians sharing a common symmetry structure (<i>9 pages</i>)	064201
C. Gonera, J. Gonera, A. Jasiński, and P. Kosiński	
Chaotic dynamics in a galactic multipolar halo with a compact primary (<i>16 pages</i>)	064202
Yeasin Ali and Suparna Roychowdhury	
Rare-reversal chaos in two-disk dynamo models (<i>10 pages</i>)	064203
Peter Frick and Roman Pleshkov	
Spectral properties of chaotic microwave networks and quantum graphs under an edge swap transformation (<i>7 pages</i>)	064204
Małgorzata Białous and Leszek Sirko	
Kink scattering in deformed φ^6 model (<i>14 pages</i>)	064205
Aliakbar Moradi Marjaneh, Azam Ghaani, and Kurosh Javidan	
Regulating protocols of globally coupled continuum systems: Effects on dynamics and thermodynamics (<i>12 pages</i>)	064206
Premashis Kumar	
Asymmetric-interaction-induced dynamical states in globally coupled populations of conformists and contrarians (<i>13 pages</i>)	064207
M. Manoranjani, D. V. Senthilkumar, and V. K. Chandrasekar	
Stationary and libration motion in two coupled rotors: Theoretical and experimental study (<i>8 pages</i>)	064208
Monish B., Abhishek Thakur, Ratan Sarkar, K. Ujjwal Singh, Jyoti Sharma, Ishant Tiwari, Suresh Kumarasamy, Sangeeta D. Gadre, P. Parmananda, and Awadhesh Prasad	
Unexplored aspects of spiral wave dynamics in the Barkley model within an extended parameter range (<i>7 pages</i>)	064209
V. S. Zykov and E. Bodenschatz	
Predicting effective quenching of stable pulses in slow-fast excitable media (<i>15 pages</i>)	064210
Christopher D. Marcotte	
Mean-field models of neural populations with Gaussian noise and non-Cauchy heterogeneities (<i>13 pages</i>)	064211
Viktoras Pyragas and Kestutis Pyragas	
Decentralized multiagent reinforcement learning algorithm using a cluster-synchronized laser network (<i>11 pages</i>)	064212
Shun Kotoku, Takatomo Mihana, André Röhm, and Ryoichi Horisaki	
Generalization of the Gauss map: A jump into chaos with universal features (<i>8 pages</i>)	064213
Christian Beck, Ugur Tirnakli, and Constantino Tsallis	
Role of coupling asymmetry in the fully disordered Kuramoto model (<i>9 pages</i>)	064214
Axel Prüser and Andreas Engel	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 110, NUMBER 6

DECEMBER 2024

Explosive synchronization in coupled stars (<i>8 pages</i>)	064215
Ruby Varshney, Kaustubh Manchanda, and Haider Hasan Jafri	
Spontaneous symmetry and antisymmetry breaking of two-component solitons in a combination of linear and nonlinear double-well potentials (<i>14 pages</i>)	064216
Liangwei Zeng, Jingsong He, Boris A. Malomed, Junbo Chen, and Xing Zhu	
Nonlinear stochastic differential equations: A renormalization group approach to direct calculation of moments (<i>9 pages</i>)	064217
Prasun Sarkar and Deb Shankar Ray	
B-tipping points in plankton dynamics: Stochasticity and early warning signals (<i>12 pages</i>)	064218
Shankha Narayan Chattopadhyay and Arvind Kumar Gupta	
Contraction and synchronization in reservoir systems (<i>11 pages</i>)	064219
Adrian S. Wong, Robert S. Martin, and Daniel Q. Eckhardt	
Nonlinear dynamics and chaos in dissipative optical trimers with complex couplings (<i>7 pages</i>)	064220
Johanne Hizanidis and Konstantinos G. Makris	
Stability of oscillation quenching in coupled oscillator populations with heterogeneous coupling (<i>10 pages</i>)	064221
Can Xu and Huajian Yu	
Further results on the power-law decay of the fraction of the mixed eigenstates in kicked-top model with mixed-type classical phase space (<i>14 pages</i>)	064222
Hua Yan, Qian Wang, and Marko Robnik	
Spatiotemporal pattern formation and selection induced by cross-diffusion in a cancer growth model with Allee effect (<i>30 pages</i>)	064223
Ying Sun, Jinliang Wang, You Li, Yanhua Zhu, Xiangyi Ma, Yunhui Zhao, Haokun Tai, and Ziwei Wang	
Analysis of equilibria in a ring of phase oscillators with nearest-neighbor and next-nearest-neighbor interactions (<i>9 pages</i>)	064224
Yirui Chen, Qionglin Dai, Yang Li, Haihong Li, and Junzhong Yang	
Comparison of stochastic adaptation and stochastic resonance (<i>6 pages</i>)	064225
Edmon Perkins	
Discrete-time partial control of transiently chaotic systems under stochastic perturbations (<i>9 pages</i>)	064226
Vipin Agarwal	
Hurst exponent: A method for characterizing dynamical traps (<i>12 pages</i>)	064227
Daniel Borin	
Diffraction and pseudospectra in non-Hermitian quasiperiodic lattices (<i>10 pages</i>)	064228
Ananya Ghatak, Dimitrios H. Kaltsas, Manas Kulkarni, and Konstantinos G. Makris	

PART B

Networks and Complex Systems

Mean-field-game approach to nonpharmaceutical interventions in a social-structure model of epidemics (<i>31 pages</i>)	064301
Louis Bremaud, Olivier Giraud, and Denis Ullmo	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 110, NUMBER 6

DECEMBER 2024

Estimating the population-level effects of nonpharmaceutical interventions when transmission rates of COVID-19 vary by orders of magnitude from one contact to another (<i>8 pages</i>)	064302
Richard P. Sear	
Scaling and universality for percolation in random networks: A unified view (<i>23 pages</i>)	064303
Lorenzo Cirigliano, Gábor Timár, and Claudio Castellano	
Dynamical importance and network perturbations (<i>10 pages</i>)	064304
Ethan Young and Mason A. Porter	
Synchronization in adaptive higher-order networks (<i>19 pages</i>)	064305
Md Sayeed Anwar, S. Nirmala Jenifer, Paulsamy Muruganandam, Dibakar Ghosh, and Timoteo Carletti	
☞ Mutual information and the encoding of contingency tables (<i>17 pages</i>)	064306
Maximilian Jerdee, Alec Kirkley, and M. E. J. Newman	
Singular-value statistics of directed random graphs (<i>7 pages</i>)	064307
J. A. Méndez-Bermúdez and R. Aguilar-Sánchez	
Sequence of pseudoequilibria describes the long-time behavior of the nonlinear noisy leaky integrate-and-fire model with large delay (<i>22 pages</i>)	064308
María J. Cáceres, José A. Cañizo, and Alejandro Ramos-Lora	
Role of higher order interactions on spiral waves in excitable media (<i>9 pages</i>)	064309
Yi-peng Hu, Qian-ming Ding, Dong Yu, Yong Wu, Tian-yu Li, and Ya Jia	
Functional decomposition and estimation of irreversibility in time series via machine learning (<i>11 pages</i>)	064310
Michele Vodret, Cristiano Pacini, and Christian Bongiorno	
Susceptible-infected-recovered-susceptible processes competing on simplicial complexes (<i>16 pages</i>)	064311
Lina Zhao, Haiying Wang, Huijie Yang, Changgui Gu, and Jack Murdoch Moore	
Q -Neighbor Ising model on a polarized network (<i>11 pages</i>)	064312
Anna Chmiel and Julian Sienkiewicz	
Stochastic quantum models for the dynamics of power grids (<i>20 pages</i>)	064313
Pierrick Guichard, Nicolas Retière, and Didier Mayou	
Fluid-network relations: Decay laws meet with spatial self-similarity, scale invariance, and control scaling (<i>18 pages</i>)	064314
Yang Tian, Pei Sun, and Yizhou Xu	
☞ Higher-order triadic percolation on random hypergraphs (<i>21 pages</i>)	064315
Hanlin Sun and Ginestra Bianconi	
Renormalization of complex networks with partition functions (<i>6 pages</i>)	064316
Sungwon Jung, Sang Hoon Lee, and Jaeyoon Cho	
Transition to synchronization in the adaptive Sakaguchi-Kuramoto model with higher-order interactions (<i>13 pages</i>)	064317
Sangita Dutta, Prosenjit Kundu, Pitambar Khanra, Chittaranjan Hens, and Pinaki Pal	
Random walks on bifractal networks (<i>10 pages</i>)	064318
Kousuke Yakubo, Gentaro Shimojo, and Jun Yamamoto	

(Continued)

CONTENTS - Continued

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 110, NUMBER 6

DECEMBER 2024

<i>q</i> -deformed evolutionary dynamics in simple matrix games (25 pages)	064319
Christopher R. Kitching and Tobias Galla	
Bifurcations and multistability in empirical mutualistic networks (17 pages)	064320
Andrus Giraldo and Deok-Sun Lee	
Informational approach to uncover the age group interactions in epidemic spreading from macro analysis (13 pages)	064321
Tiago Martinelli, Alberto Aleta, Francisco A. Rodrigues, and Yamir Moreno	
Biological Physics	
 Formation of motile cell clusters in heterogeneous model tumors: The role of cell-cell alignment (11 pages)	064401
Quirine J. S. Braat, Cornelis Storm, and Liesbeth M. C. Janssen	
Flexible string model of unsaturated lipid bilayer (9 pages)	064402
Boris Kheifets and Sergei Mukhin	
Coat stiffening can explain invagination of clathrin-coated membranes (12 pages)	064403
Felix Frey and Ulrich S. Schwarz	
Generalized end-product feedback circuit can sense high-dimensional environmental fluctuations (7 pages)	064404
Fang Yu and Mikhail Tikhonov	
Biophysical model for joint analysis of chromatin and RNA sequencing data (23 pages)	064405
Catherine Felce, Gennady Gorin, and Lior Pachter	
 Swarm coherence mechanism for jellyfish (19 pages)	064406
Erik Gengel, Zafir Kuplik, Dror Angel, and Eyal Heifetz	
Gradient sensing limit of an elongated cell with orientational control (22 pages)	064407
Kento Nakamura and Tetsuya J. Kobayashi	
Polymers	
Effect of magnetomechanical hysteresis on the field-induced oscillations of particles in a magnetoactive elastomer (8 pages)	064501
Anastasiya M. Biller, Oleg V. Stolbov, and Yuriy L. Raikher	
Viscoelastic relaxation of random scale-free copolymer networks (19 pages)	064502
Marcus V. Alves Ribeiro and Mircea Galiceanu	
Mapping self-avoiding walk on obstacle-ridden lattice onto chelation of heavy metal ions: Monte Carlo study (11 pages)	064503
Viktoria Blavatska, Jaroslav Ilnytskyi, and Erkki Lähderanta	
Conformation and dynamics of wet externally actuated filaments with tangential active forces (13 pages)	064504
Loek van Steijn, Mohammad Fazelzadeh, and Sara Jabbari-Farouji	
Colloids, Complex Fluids, and Active Matter	
Effects of collective patterns, confinement, and fluid flow on active particle transport (11 pages)	064601
Chiara Calascibetta, Laetitia Giraldi, Zakarya El Khiyati, and Jérémie Bec	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 110, NUMBER 6

DECEMBER 2024

Self-trapping of active particles with nonreciprocal interactions in disordered media (<i>6 pages</i>)	064602
Rodrigo Saavedra and Fernando Peruani	
Direct manipulation of diffusion in colloidal glasses via controlled generation of quasi-particle-like defects (<i>8 pages</i>)	064603
Yi-Di Wang, Chu Xiao, Anupam Kumar, Yun-Hong Shi, Chun-Shing Lee, King-Cheong Lam, Man-Kin Fung, Chor-Hoi Chan, Yuen-Hong Tsang, Bo Li, Chi-Hang Lam, and Cho-Tung Yip	
Birth, death, and horizontal flight: Malthusian flocks with an easy plane in three dimensions (<i>6 pages</i>)	064604
John Toner	
Hyperuniformity scaling of maximally random jammed packings of two-dimensional binary disks (<i>12 pages</i>)	064605
Charles Emmett Maher and Salvatore Torquato	
Optimal diffusion of chiral active particles with strategic reorientations (<i>12 pages</i>)	064606
Kristian Stølevik Olsen and Hartmut Löwen	
Colloidal deposits from evaporating sessile droplets: A computationally efficient framework for predicting the final deposit shape (<i>21 pages</i>)	064607
Nathan C. J. Coombs, Mykyta V. Chubynsky, and James E. Sprittles	
Modeling the efficiency and effective temperature of bacterial heat engines (<i>11 pages</i>)	064608
Roland Wiese, Klaus Kroy, and Viktor Holubec	
Active Ornstein-Uhlenbeck model for bacterial heat engines (<i>8 pages</i>)	064609
Roland Wiese, Klaus Kroy, and Viktor Holubec	
Molecular Stokes-Einstein and Stokes-Einstein-Debye relations for water including viscosity-dependent slip and hydrodynamic radius (<i>9 pages</i>)	064610
Sina Zendehtroud, Jan O. Daldrop, Yann von Hansen, Henrik Kiefer, and Roland R. Netz	
Liquid Crystals	
Anchoring transitions in thin liquid crystal films as seen from a mean-force potentials approach (<i>8 pages</i>)	064701
Izabela Śliwa, Pavel V. Maslennikov, and Alex V. Zakharov	
Laser-driven nematic flow in microfluidic devices (<i>7 pages</i>)	064702
Izabela Śliwa, Pavel V. Maslennikov, Dmitrii P. Shcherbinin, and Alex V. Zakharov	
Films and Interfaces	
Cooperative sequential adsorption of monomers on a square lattice in the presence of repulsive interactions between near neighbors (<i>6 pages</i>)	064801
Nikolai Lebovka, Michał Cieřła, Mykhaylo Petryk, and Nikolai Vygornitskii	
Effect of initial geometry on crumpled thin shells (<i>8 pages</i>)	064802
Chang-Yi Lyu, Hong-Yue Huang, Hung-Chieh Fan Chiang, and Tzay-Ming Hong	
Asymptotic properties of bridging transitions in sinusoidally shaped slits (<i>9 pages</i>)	064803
Alexandr Malijevský and Martin Pospřil	
Random interfaces generated by the addition of structures of variable size (<i>6 pages</i>)	064804
Nicolas Pétrelis and François Pétrelis	

(Continued)

Granular Materials

- Origins of the reverse Janssen effect (*9 pages*) 064901
 Srujal Shah, Ana Maria Mosquera Gomez, Payman Jalali, and Lou Kondic
- Mean square displacement of intruders in freely cooling multicomponent granular mixtures (*15 pages*) 064902
 Rubén Gómez González, Santos Bravo Yuste, and Vicente Garzó

Solid Mechanics

- Discontinuous dynamic transition in crack propagation of stretchable elastomers (*11 pages*) 065001
 Zehao Fan and Shi-Qing Wang
- Tunable orbital angular momentum generator for directional acoustic transmission (*12 pages*) 065002
 Liulin Li, Bingyi Liu, and Zhongyi Guo
- Odd dipole screening in radial inflation (*11 pages*) 065003
 Yang Fu, H. George E. Hentschel, Pawandeep Kaur, Avanish Kumar, and Itamar Procaccia
- Energy dispersion of localized disturbance in continuum and discrete media (*18 pages*) 065004
 Julia A. Baimova, Nikolay M. Bessonov, Anton M. Krivtsov, and Ioanna N. Trunova

Fluid Dynamics

- Reversible logic with a nanofluidic memristor (*8 pages*) 065101
 Sergio Portillo, Javier Cervera, Salvador Mafe, and Patricio Ramirez
- Pore occupancy of gas hydrate (*7 pages*) 065102
 David DiCarlo, Zachary W. Murphy, Kehua You, Peter B. Flemings, and Xiaoli Liu
- Numerical study of thermal nonequilibrium effects on Richtmyer-Meshkov flow driven by a heavy forward-triangular bubble (*19 pages*) 065103
 Salman Saud Alsaeed and Satyvir Singh
- Numerical analysis of binary fluid convection with thermal and solutal lateral gradients (*18 pages*) 065104
 Juan Sánchez Umbría and Marta Net
- Microscale transport of CO₂ and H₂ storage in shale gas formations (*15 pages*) 065105
 Lingfu Liu and Saman A. Aryana
- Rare, noise-induced, bypass transition in plane Couette flow can bypass instantons (*31 pages*) 065106
 Joran Rolland
- Fractal dimension of non-Newtonian Hele-Shaw flow subject to Saffman-Taylor instability (*10 pages*) 065107
 J. Adriaola, B. Gu, L. J. Cummings, and L. Kondic
- Surfing droplets on nanoscopic films driven by surface acoustic waves (*9 pages*) 065108
 N. S. Satpathi, L. Malik, S. Nandy, T. Sujith, L. Y. Yeo, and A. K. Sen

Plasma Physics

- Evolution of radiative thermal instability in a confined medium (*15 pages*) 065201
 Henry Fetsch and Nathaniel J. Fisch

(Continued)

Compression of high-power laser pulse leads to increase of electron acceleration efficiency (<i>10 pages</i>)	065202
O. E. Vais, M. G. Lobok, and V. Yu. Bychenkov	
Laser-triggered terahertz emission from near-critical-density targets (<i>9 pages</i>)	065203
V. Yu. Bychenkov, A. V. Brantov, M. G. Lobok, and A. S. Kuratov	
Spatial, temporal, and spectral characteristics of the x-ray emissions in the peripheral direction of a laboratory atmospheric discharge (<i>11 pages</i>)	065204
E. V. Parkevich, K. V. Shpakov, I. S. Baidin, A. A. Rodionov, A. I. Khirianova, Ya. K. Bolotov, and V. A. Ryabov	
Ionization dynamics and x-ray transmission of aluminum plasma at temperature reaching 110 eV (<i>15 pages</i>)	065205
Qiang Yi, Fan Ye, Jian Lu, Xiaosong Yan, Ruihua Yang, Shuqing Jiang, Jiamin Ning, Lin Zhou, Faxin Chen, Jianlun Yang, Dongming Wang, Zeping Xu, Haibo You, Faqiang Zhang, Zhenghong Li, Guanqiong Wang, Delong Xiao, Zeqing Wu, Shijian Meng, Xianbin Huang, Qiang Xu, Shaotong Zhou, Daoyuan Zhang, Siqun Zhang, Xiaodong Ren, Ce Ji, Yong Li, Potao Cai, Ji Ren, Shi Chen, Haoyu Zhang, and Xiuwen Zhou	
Mitigation of stimulated Brillouin scattering in inhomogeneous plasmas by broadband lasers (<i>8 pages</i>)	065206
Yao Zhao, Anle Lei, Ning Kang, Fujian Li, Xiaofeng Li, Huiya Liu, Zhuwen Lin, Hongwei Yin, Yilin Xu, Yaozhi Yi, and Zhengxi Xu	
☞ Impact of electron trapping on stimulated Raman scattering under incoherent broadband laser light in homogeneous plasma (<i>12 pages</i>)	065207
David R. Blackman, Vladimir Tikhonchuk, Ondrej Klimo, and Stefan Weber	
Multiplicity of electron- and photon-seeded electromagnetic showers at multipetawatt laser facilities (<i>22 pages</i>)	065208
M. Pouyez, A. A. Mironov, T. Grismayer, A. Mercuri-Baron, F. Perez, M. Vranic, C. Riconda, and M. Grech	
Existence of true plasma equilibria in asymmetric magnetic fields (<i>16 pages</i>)	065209
E. A. Sorokina and V. I. Ilgisonis	
Two-dimensional shock propagation and Mach stem formation induced by a laser-produced annular plasma (<i>10 pages</i>)	065210
Felipe Veloso, Vicente Rosales, Mario Favre, and Julio Valenzuela	
☞ Producing entangled photon pairs and quantum squeezed states in plasmas (<i>11 pages</i>)	065211
Kenan Qu and Nathaniel J. Fisch	
Relativistic two-wave resonant acceleration of electrons at large-amplitude standing whistler waves during laser-plasma interaction (<i>20 pages</i>)	065212
Takayoshi Sano, Shogo Isayama, Kenta Takahashi, and Shuichi Matsukiyo	
Absorption of electromagnetic waves at oblique resonance in plasmas threaded by inhomogeneous magnetic fields (<i>13 pages</i>)	065213
Trishul Dhalia, Rohit Juneja, and Amita Das	
Excitation of electromagnetic rogue waves in magnetized plasmas (<i>9 pages</i>)	065214
Heng Zhang, Zhi-Lin Zhu, Malcolm-Wray Dunlop, Wen-Shan Duan, and Qing-He Zhang	
Computational Physics	
Hybrid discontinuous Galerkin method for the hyperbolic linear Boltzmann transport equation for multiscale problems (<i>16 pages</i>)	065301
Qizheng Sun, Xiaojing Liu, Xiang Chai, Hui He, Lianjie Wang, Bin Zhang, and Tengfei Zhang	

(Continued)

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 110, NUMBER 6

DECEMBER 2024

Computational inverse scattering with internal sources: A reproducing kernel Hilbert space approach (<i>9 pages</i>)	065302
Yakun Dong, Kamran Sadiq, Otmar Scherzer, and John C. Schotland	
Quadratic scaling path integral molecular dynamics for fictitious identical particles and its application to fermion systems (<i>12 pages</i>)	065303
Yunuo Xiong, Shujuan Liu, and Hongwei Xiong	
Lattice Boltzmann Shakhov kinetic models for variable Prandtl number on Cartesian lattices (<i>18 pages</i>)	065304
Oleg Ilyin	
 Zero-temperature Monte Carlo simulations of two-dimensional quantum spin glasses guided by neural network states (<i>9 pages</i>)	065305
L. Brodolini and S. Pilati	
Hyperoptimized approximate contraction of tensor networks for rugged-energy-landscape spin glasses on periodic square and cubic lattices (<i>12 pages</i>)	065306
Adil A. Gangat and Johnnie Gray	
Physics-guided multistage neural network: A physically guided network for step initial values and dispersive shock wave phenomena (<i>20 pages</i>)	065307
Wen-Xuan Yuan and Rui Guo	
Projected complex Langevin sampling method for bosons in the canonical and microcanonical ensembles (<i>17 pages</i>)	065308
Ethan C. McGarrigle, Hector D. Cenicerros, and Glenn H. Fredrickson	

ERRATA

Erratum: Broken detailed balance and entropy production in directed networks [Phys. Rev. E 110 , 034313 (2024)] (<i>2 pages</i>)	069901(E)
Ramón Nartallo-Kaluarachchi, Malbor Asllani, Gustavo Deco, Morten L. Kringelbach, Alain Goriely, and Renaud Lambiotte	