

Traffic of cytoskeletal motors with disordered attachment rates (<i>13 pages</i>)	031929
H. Grzeschik, R. J. Harris, and L. Santen	

BRIEF REPORTS

Statistical physics

Sampling of quantum dynamics at long time (<i>4 pages</i>)	032101
Alessandro Sergi and Francesco Petruccione	
Exact moment scaling from multiplicative noise (<i>4 pages</i>)	032102
Giacomo Bormetti and Danilo Delpini	
Noise-driven dynamic phase transition in a one-dimensional Ising-like model (<i>4 pages</i>)	032103
Parongama Sen	
Stochastic algorithms for discontinuous multiplicative white noise (<i>4 pages</i>)	032104
R. Perez-Carrasco and J. M. Sancho	

Granular materials

Effects of thermal noise on pattern onset in continuum simulations of shaken granular layers (<i>4 pages</i>)	032301
J. Bougie	

Biological physics

Phase transition between A and B forms of DNA: A free-energy perspective (<i>4 pages</i>)	032901
Devashish Sanyal	
Role of topology in electrical properties of bacterio-rhodopsin and rat olfactory receptor I7 (<i>4 pages</i>)	032902
E. Alfinito and L. Reggiani	

COMMENTS

Statistical physics

Comment on “Dynamic properties in a family of competitive growing models” (<i>2 pages</i>)	033101
A. Kolakowska and M. A. Novotny	
Reply to “Comment on ‘Dynamic properties in a family of competitive growing models’ ” (<i>2 pages</i>)	033102
Claudio M. Horowitz and Ezequiel V. Albano	

Self-consistent approach for neutral community models with speciation (<i>13 pages</i>)	031911
Bart Haegeman and Rampal S. Etienne	
Effective zero-thickness model for a conductive membrane driven by an electric field (<i>13 pages</i>)	031912
Falko Ziebert, Martin Z. Bazant, and David Lacoste	
Vibron-phonon coupling strength in a finite size lattice of H-bonded peptide units (<i>11 pages</i>)	031913
Vincent Pouthier	
Effects of molecular-scale processes on observable growth properties of actin networks (<i>12 pages</i>)	031914
J. Zhu and A. E. Carlsson	
Solvent-induced backbone fluctuations and the collective librational dynamics of lysozyme studied by terahertz spectroscopy (<i>15 pages</i>)	031915
K. N. Woods	
Estimating input parameters from intracellular recordings in the Feller neuronal model (<i>13 pages</i>)	031916
Enrico Bibbona, Petr Lansky, and Roberta Sirovich	
Effect of solvation-related interaction on the low-temperature dynamics of proteins (<i>9 pages</i>)	031917
Guanghong Zuo, Jun Wang, Meng Qin, Bin Xue, and Wei Wang	
Electrophoresis of end-labeled DNA: Theory and experiment (<i>8 pages</i>)	031918
Henry W. Lau and Lynden A. Archer	
Generalized fundamental measure theory for atomistic modeling of macromolecular crowding (<i>5 pages</i>)	031919
Sanbo Qin and Huan-Xiang Zhou	
Averaged implicit hydrodynamic model of semiflexible filaments (<i>17 pages</i>)	031920
Preethi L. Chandran and Mohammad R. K. Mofrad	
Theoretical analysis of flux amplification by soft magnetic material in a putative biological magnetic-field receptor (<i>14 pages</i>)	031921
Valera P. Shcherbakov and Michael Winklhofer	
Constricting force of filamentary protein rings evaluated from experimental results (<i>9 pages</i>)	031922
I. Hörger, F. Campelo, A. Hernández-Machado, and P. Tarazona	
Direct evidence of the multidimensionality of the free-energy landscapes of proteins revealed by mechanical probes (<i>4 pages</i>)	031923
Zu Thur Yew, Michael Schlierf, Matthias Rief, and Emanuele Paci	
Messenger RNA fluctuations and regulatory RNAs shape the dynamics of a negative feedback loop (<i>11 pages</i>)	031924
María Rodríguez Martínez, Jordi Soriano, Tsvi Tlusty, Yitzhak Pilpel, and Itay Furman	
Simple electrostatic model applicable to biomolecular recognition (<i>9 pages</i>)	031925
T. P. Doerr and Yi-Kuo Yu	
Action-potential-encoded second-harmonic generation as an ultrafast local probe for nonintrusive membrane diagnostics (<i>5 pages</i>)	031926
M. N. Shneider, A. A. Voronin, and A. M. Zheltikov	
Physiologically driven avian vocal synthesizer (<i>6 pages</i>)	031927
Jacob D. Sitt, Ezequiel M. Arneodo, Franz Goller, and Gabriel B. Mindlin	
Ion transport through confined ion channels in the presence of immobile charges (<i>6 pages</i>)	031928
Punyabrata Pradhan, Yariv Kafri, and Dov Levine	

Evolution of a rare sequence of surface transitions with temperature and film thickness (<i>8 pages</i>)	031712
B. K. McCoy, LiDong Pan, Z. Q. Liu, S. T. Wang, Shun Wang, J. W. Goodby, and C. C. Huang	
Tunable reflectance spectra of multilayered cholesteric photonic structures with anisotropic defect layers (<i>7 pages</i>)	031713
E. M. Nascimento, F. M. Zanetti, M. L. Lyra, and I. N. de Oliveira	
Kinetics of director gliding on a polymer–liquid-crystal interface (<i>6 pages</i>)	031714
I. Jánossy	
Polymers	
Structure of void space in polymer solutions (<i>6 pages</i>)	031801
Bong June Sung and Arun Yethiraj	
Stretching weakly bending filaments with spontaneous curvature in two dimensions (<i>6 pages</i>)	031802
Panayotis Benetatos and Eugene M. Terentjev	
Unforced polymer translocation compared to the forced case (<i>8 pages</i>)	031803
V. V. Lehtola, R. P. Linna, and K. Kaski	
Thermally activated breakdown in a simple polymer model (<i>9 pages</i>)	031804
S. Fugmann and I. M. Sokolov	
Simulation study of field-induced morphological changes in a proton-conducting ionomer (<i>11 pages</i>)	031805
Elshad Allahyarov, Philip L. Taylor, and Hartmut Löwen	
Biological physics	
Dynamics of biomembranes with active multiple-state inclusions (<i>11 pages</i>)	031901
Hsuan-Yi Chen and Alexander S. Mikhailov	
Local site preference rationalizes disentangling by DNA topoisomerases (<i>4 pages</i>)	031902
Zhirong Liu, Lynn Zechiedrich, and Hue Sun Chan	
Diffusing proteins on a fluctuating membrane: Analytical theory and simulations (<i>11 pages</i>)	031903
Ellen Reister-Gottfried, Stefan M. Leitenberger, and Udo Seifert	
Multiscale simulation of erythrocyte membranes (<i>11 pages</i>)	031904
Zhangli Peng, Robert J. Asaro, and Qiang Zhu	
Discrete and continuous invariance in phyllotactic tilings (<i>14 pages</i>)	031905
Patrick D. Shipman	
Phenomenological approach to eukaryotic chemotactic efficiency (<i>5 pages</i>)	031906
Bo Hu, Danny Fuller, William F. Loomis, Herbert Levine, and Wouter-Jan Rappel	
Voltage-induced bending and electromechanical coupling in lipid bilayers (<i>9 pages</i>)	031907
Ben Harland, William E. Brownell, Alexander A. Spector, and Sean X. Sun	
All-atom normal-mode analysis reveals an RNA-induced allostery in a bacteriophage coat protein (<i>10 pages</i>)	031908
Eric C. Dykeman and Reidun Twarock	
Dynamics of electroencephalogram entropy and pitfalls of scaling detection (<i>9 pages</i>)	031909
M. Ignaccolo, M. Latka, W. Jernajczyk, P. Grigolini, and B. J. West	
Microtubule length distributions in the presence of protein-induced severing (<i>8 pages</i>)	031910
Simon H. Tindemans and Bela M. Mulder	

Diverging length scale of the inhomogeneous mode-coupling theory: A numerical investigation (<i>12 pages</i>) . . .	031507
Grzegorz Szamel and Elijah Flenner	
Films, interfaces, and crystal growth	
Structural disjoining potential for grain-boundary premelting and grain coalescence from molecular-dynamics simulations (<i>10 pages</i>)	031601
Saryu J. Fensin, David Olmsted, Dorel Buta, Mark Asta, Alain Karma, and J. J. Hoyt	
Nonequilibrium fluctuations of an interface under shear (<i>13 pages</i>)	031602
Marine Thiébaud and Thomas Bickel	
Coupled-map-lattice model for spontaneous pore formation in anodic oxidation (<i>6 pages</i>)	031603
Hidetsugu Sakaguchi and Jie Zhao	
Theory of ice premelting in porous media (<i>13 pages</i>)	031604
Hendrik Hansen-Goos and J. S. Wettlaufer	
Liquid crystals	
Theoretical analysis of continuous pitch evolution and reversed phase sequence in antiferroelectric liquid crystals (<i>4 pages</i>)	031701
Katarina Susman, Boštjan Žekš, and Mojca Čepič	
Optical-ellipsometric study of the nematic-to-smectic transition in 8CB films adsorbed on silicon (<i>7 pages</i>)	031702
S. Chakraborty and R. Garcia	
Criticality of an isotropic-to-smectic transition induced by anisotropic quenched disorder (<i>4 pages</i>)	031703
Gilbert Chahine, Andriy V. Kityk, Klaus Knorr, Ronan Lefort, Mohammed Guendouz, Denis Morineau, and Patrick Huber	
Statistical mechanics of splay flexoelectricity in nematic liquid crystals (<i>8 pages</i>)	031704
Subas Dhakal and Jonathan V. Selinger	
Two-beam energy exchange in a hybrid photorefractive-flexoelectric liquid-crystal cell (<i>15 pages</i>)	031705
V. Yu. Reshetnyak, I. P. Pinkevych, G. Cook, D. R. Evans, and T. J. Sluckin	
Thermodynamics of blue phases in electric fields (<i>10 pages</i>)	031706
O. Henrich, D. Marenduzzo, K. Stratford, and M. E. Cates	
Periodic splay-twist Fréedericksz transition for nematics confined between two concentric cylinders (<i>9 pages</i>)	031707
Giuseppe Bevilacqua and Gaetano Napoli	
Bundles of fluid fibers formed by bent-core molecules (<i>6 pages</i>)	031708
C. Bailey, M. Murphy, A. Eremin, W. Weissflog, and A. Jákli	
Stepwise transition of a topological defect from the smectic film to the boundary of a dipolar inclusion (<i>6 pages</i>)	031709
P. V. Dolganov, E. I. Kats, and P. Cluzeau	
Second-harmonic dielectric response of an antiferroelectric liquid crystal under dc electric fields (<i>5 pages</i>)	031710
Andika Fajar and Hiroshi Orihara	
Dielectric properties of mixtures of a bent-core and a calamitic liquid crystal (<i>11 pages</i>)	031711
Péter Salamon, Nándor Éber, Ágnes Buka, James T. Gleeson, Samuel Sprunt, and Antal Jákli	

Zero Pearson coefficient for strongly correlated growing trees (<i>6 pages</i>)	031135
S. N. Dorogovtsev, A. L. Ferreira, A. V. Goltsev, and J. F. F. Mendes	
Dissipative quantum systems and the heat capacity (<i>12 pages</i>)	031136
S. Dattagupta, Jishad Kumar, S. Sinha, and P. A. Sreeram	
Equilibrium and linear transport properties of fluids	
Cluster formation, waterlike anomalies, and re-entrant melting for a family of bounded repulsive interaction potentials (<i>13 pages</i>)	031201
Erik Lascaris, Gianpietro Malescio, Sergey V. Buldyrev, and H. Eugene Stanley	
Granular materials	
Experimental study of the jamming transition at zero temperature (<i>12 pages</i>)	031301
Xiang Cheng	
Spectral responses in granular compaction (<i>14 pages</i>)	031302
Ling-Nan Zou (邹岭楠)	
Colloidal dispersions, suspensions, and aggregates	
Strain-rate frequency superposition in large-amplitude oscillatory shear (<i>10 pages</i>)	031401
Chirag Kalelkar, Ashish Lele, and Samruddhi Kamble	
Growth kinetics of colloidal chains and labyrinths (<i>7 pages</i>)	031402
Mark D. Haw	
Dielectric spectra of ionic water-in-oil microemulsions below percolation: Frequency dependence behavior (<i>8 pages</i>)	031403
C. Cametti	
Discrete rearranging disordered patterns: Prediction of elastic and plastic behavior, and application to two-dimensional foams (<i>13 pages</i>)	031404
C. Raufaste, S. J. Cox, P. Marmottant, and F. Graner	
Structured and complex fluids	
Nature of the glassy transition in simulations of the ferromagnetic plaquette Ising model (<i>7 pages</i>)	031501
S. Davatolhagh, D. Dariush, and L. Separdar	
Nonlinear dynamics of capacitive charging and desalination by porous electrodes (<i>12 pages</i>)	031502
P. M. Biesheuvel and M. Z. Bazant	
Infrared spectroscopy study of structural changes in glass-forming salol (<i>6 pages</i>)	031503
J. Baran and N. A. Davydova	
Structure and dynamics of topological defects in a glassy liquid on a negatively curved manifold (<i>8 pages</i>)	031504
François Sausset, Gilles Tarjus, and David R. Nelson	
Scaling of the glassy dynamics of soft repulsive particles: A mode-coupling approach (<i>10 pages</i>)	031505
Ludovic Berthier, Elijah Flenner, Hugo Jacquin, and Grzegorz Szamel	
Vibrational dynamics and boson peak in a supercooled polydisperse liquid (<i>10 pages</i>)	031506
Sneha Elizabeth Abraham and Biman Bagchi	

(Continued)

Conducting-angle-based percolation in the XY model (6 pages)	031117
Yancheng Wang, Wenan Guo, Bernard Nienhuis, and Henk W. J. Blöte	
Determining global mean-first-passage time of random walks on Vicsek fractals using eigenvalues of Laplacian matrices (7 pages)	031118
Zhongzhi Zhang, Bin Wu, Hongjuan Zhang, Shuigeng Zhou, Jihong Guan, and Zhigang Wang	
Asperity characteristics of the Olami-Feder-Christensen model of earthquakes (10 pages)	031119
Hikaru Kawamura, Takumi Yamamoto, Takeshi Kotani, and Hajime Yoshino	
Partition function zeros of the square-lattice Ising model with nearest- and next-nearest-neighbor interactions (7 pages)	031120
Seung-Yeon Kim	
Square lattice gases with two- and three-body interactions revisited: A row-shifted (2×2) phase (6 pages)	031121
Junqi Yin and D. P. Landau	
Algebraic characteristics and satisfiability threshold of random Boolean equations (10 pages)	031122
Binghui Guo, Wei Wei, Yifan Sun, and Zhiming Zheng	
Noise-induced anomalous diffusion over a periodically modulated saddle (7 pages)	031123
Jun-Wen Mao, Jiang-Xing Chen, Wen-Hua Huang, Bai-Qing Li, and Wei-Kuan Ge	
Heat conduction in driven Frenkel-Kontorova lattices: Thermal pumping and resonance (6 pages)	031124
Bao-quan Ai (艾保全), Dahai He (贺达海), and Bambi Hu (胡斑比)	
Fluctuation-induced collective motion: A single-particle density analysis (6 pages)	031125
Chiu Fan Lee (李超帆)	
Time-resolved extinction rates of stochastic populations (8 pages)	031126
M. Khasin, B. Meerson, and P. V. Sasorov	
Crumpled states of a wire in a two-dimensional cavity with pins (5 pages)	031127
M. A. F. Gomes, V. P. Brito, M. S. Araújo, and C. C. Donato	
Detection of weak and large electric fields through the transient dynamics of a Brownian particle in an electromagnetic field (7 pages)	031128
J. I. Jiménez-Aquino and M. Romero-Bastida	
Stochastic load-redistribution model for cascading failure propagation (5 pages)	031129
Jörg Lehmann and Jakob Bernasconi	
Two-dimensional XY and clock models studied via the dynamics generated by rough surfaces (11 pages)	031130
A. Faissal Brito, José Arnaldo Redinz, and J. A. Plascak	
Comparison among various expressions of complex admittance for quantum systems in contact with a heat reservoir (33 pages)	031131
Mizuhiko Saeki, Chikako Uchiyama, Takashi Mori, and Seiji Miyashita	
Analytic formula for leading-order nonlinear coherent response in stochastic resonance (14 pages)	031132
Asish Kumar Dhara	
Characterization of intermittency in renewal processes: Application to earthquakes (6 pages)	031133
Takuma Akimoto, Tomohiro Hasumi, and Yoji Aizawa	
Lower bounds on the ground-state entropy of the Potts antiferromagnet on slabs of the simple cubic lattice (6 pages)	031134
Robert Shrock and Yan Xu	