PHYSICAL REVIEW E THIRD SERIES, VOLUME 81, NUMBER 2 FEBRUARY 2010

Biological physics

Mismatch of bulk viscosity reduces interfacial diffusivity at an aqueous-oil system *(4 pages)* . . . . . 020901(R)
Makiko Negishi, Takahiro Sakaue, and Kenichi Yoshikawa

Treecode algorithm for pairwise electrostatic interactions with solvent-solute polarization *(4 pages)* . . . . . 020902(R)
Zhenli Xu

Experimental evidence of strong anomalous diffusion in living cells *(4 pages)* . . . . . 020903(R)
Naama Gal and Daphne Weihs

ARTICLES

Statistical physics

Quantum phase transition in a disordered long-range transverse Ising antiferromagnet *(11 pages)* 021101
Anjan Kumar Chandra, Jun-ichi Inoue, and Bikas K. Chakrabarti

Gravitational force in an infinite one-dimensional Poisson distribution *(9 pages)* 021102
A. Gabrielli and M. Joyce

Fractional Brownian motion and motion governed by the fractional Langevin equation in confined geometries *(11 pages)* 021103
Jae-Hyung Jeon and Ralf Metzler

Statistical mechanics of an error correcting code using monotonic and nonmonotonic treelike multilayer perceptrons *(10 pages)* 021104
Florent Cousseau, Kazushi Mimura, and Masato Okada

Divergent series and memory of the initial condition in the long-time solution of some anomalous diffusion problems *(9 pages)* 021105
S. Bravo Yuste, R. Borrego, and E. Abad

Biased motion and molecular motor properties of bipedal spiders *(11 pages)* 021106
Laleh Samii, Heiner Linke, Martin J. Zuckermann, and Nancy R. Forde

Quantum Smoluchowski equation: A systematic study *(14 pages)* 021107
Stefan A. Maier and Joachim Ankerhold

Generalization of the Peierls-Griffiths theorem for the Ising model on graphs *(6 pages)* 021108
Riccardo Campari and Davide Cassi

Spectral density of fluctuations in fractional bistable Klein-Kramers systems *(6 pages)* 021109
Yan-Mei Kang and Yao-Lin Jiang

Enhancement of the longitudinal transport by a weakly transversal drive *(5 pages)* 021110
Yafeng He and Bao-quan Ai

Emergence and control of heat current from strict zero thermal bias *(4 pages)* 021111
Jie Ren and Baowen Li

Renormalization-group approach to the Manna sandpile *(9 pages)* 021112
Chai-Yu Lin

Stochastic process leading to wave equations in dimensions higher than one *(5 pages)* 021113
A. V. Plyukhin

Competing reaction model with many absorbing configurations *(7 pages)* 021114
M. F. de Andrade and W. Figueiredo

(Continued)