Current Rapid Communications

Rapid Communications in Physical Review are short reports of important new work which are of sufficient interest to be given priority handling in the publication process. The following papers have been accepted for publication as Rapid Communications and appear as indicated in the designated Physical Review issues.

Physical Review E, Vol. 59, February 1999, Issue 2

Bounds for the time to failure of hierarchical systems of fracture ..... J. B. Gómez, M. Vázquez-Prada, Y. Moreno, and A. F. Pacheco R1287

Noninstantaneous collisions and two concepts of quasiparticles ..... Pavel Lipavský, Václav Špička, and Klaus Morawetz R1291

Numerical signs for a transition in the two-dimensional random field Ising model at $T = 0$ ..... Carlos Frontera and Eduard Vives R1295

Time scale separation and heterogeneous off-equilibrium dynamics in spin models over random graphs ..... A. Barrat and R. Zecchina R1299

Dynamics of defect formation ..... Esteban Moro and Grant Lythe R1303

Synchronization and maximum Lyapunov exponents of cellular automata ..... Franco Bagnoli and Raúl Rechtman R1307

Self-organization of traffic jams in cities: Effects of stochastic dynamics and signal periods ..... Debashish Chowdhury and Andreas Schadschneider R1311

Models of intermediate spectral statistics ..... E. B. Bogomolny, U. Gerland, and C. Schmit R1315

Linear and nonlinear refraction and Bragg scattering of water waves ..... Y. Agnon, R1319

Critical behavior of birefringence in the smectic-A phase of chiral smectic liquid crystals ..... M. Škarabot, K. Kočevar, R. Blinc, G. Heppke, and I. Muševič R1323

Hexagons and interfaces in a vibrated granular layer ..... I. S. Aranson, L. S. Tsimring, and V. M. Vinokur R1327

Spinodal decomposition in gels ..... A. Onuki and S. Puri R1331

Absence of many-body effects in interactions between charged colloidal particles ..... Riina Tehver, Francesco Ancilotto, Flavio Toigo, Joel Koplik, and Jayanth R. Banavar R1335

Depletion forces in hard-sphere colloids ..... Riina Tehver, Amos Maritan, Joel Koplik, and Jayanth R. Banavar R1339

Joule heating rate need not equal I^2R, where R is the Ohmic resistance: The case of voltaic cells ..... Wayne M. Saslow R1343

Ideal glass-glass transitions and logarithmic decay of correlations in a simple system ..... L. Fabbian, W. Götze, F. Sciortino, P. Tartaglia, and F. Thiery R1347

Dynamic simulations of the Kosterlitz-Thouless phase transition ..... B. Zheng, M. Schulz, and S. Trimper R1351