

CONTENTS - *Continued*

PHYSICAL REVIEW E

THIRD SERIES, VOLUME 58, NUMBER 5

NOVEMBER 1998

Bethe approximation for a semiflexible polymer chain	R5241
Stefano Lise, Amos Maritan, and Alessandro Pelizzola	
Dynamics of wetting fronts in porous media	R5245
Igor Mitkov, Daniel M. Tartakovsky, and C. Larrabee Winter	

Biological physics

Monte Carlo procedure for protein design	R5249
Anders Irbäck, Carsten Peterson, Frank Potthast, and Erik Sandelin	

Plasma physics

Role of the plasma scale length in the harmonic generation from solid targets	R5253
M. Zepf, G. D. Tsakiris, G. Pretzler, I. Watts, D. M. Chambers, P. A. Norreys, U. Andiel, A. E. Dangor, K. Eidmann, C. Gahn, A. Machacek, J. S. Wark, and K. Witte	
Particle injection into the wave acceleration phase due to nonlinear wake wave breaking	R5257
S. Bulanov, N. Naumova, F. Pegoraro, and J. Sakai	

Classical physics, including nonlinear media

Electromagnetic standing wave resonances in a periodically corrugated waveguide	R5261
V. A. Pogrebnyak	
Generalized momentum method to describe high-frequency solitary wave propagation in systems with varying dispersion	R5264
Sergei K. Turitsyn, Tobias Schaefer, and Vladimir K. Mezentsev	

ARTICLES

General methods of statistical physics

Quantum plasmas with or without a uniform magnetic field. I. General formalism and algebraic tails of correlations	5268
F. Cornu	
Quantum plasmas with or without a uniform magnetic field. II. Exact low-density free energy	5293
F. Cornu	
Quantum plasmas with or without a uniform magnetic field. III. Exact low-density algebraic tails of correlations	5322
F. Cornu	
Optical excitable waves	5347
P. Coullet, D. Daboussy, and J. R. Tredicce	
Dissipation of energy and of information in nonequilibrium reaction-diffusion systems	5351
Bernard Gaveau, Michel Moreau, and Janos Toth	
Quantum annealing in the transverse Ising model	5355
Tadashi Kadowaki and Hidetoshi Nishimori	
Pattern dynamics of Rayleigh-Bénard convective rolls and weakly segregated diblock copolymers	5364
Jacob J. Christensen and Alan J. Bray	
Modified Borel summation of divergent series and critical-exponent estimates for an N -vector cubic model in three dimensions from five-loop ϵ expansions	5371
A. I. Mudrov and K. B. Varnashev	
Comparative study of self-avoiding trails and self-avoiding walks on a family of compact fractals	5376
Ivan Živić, Sava Milošević, and H. Eugene Stanley	
Lévy random walks in finite systems	5382
P. M. Drysdale and P. A. Robinson	