

# PHYSICS LETTERS A

VOLUME 310

NUMBERS 2-3

14 APRIL 2003

Also available on

SCIENCE  DIRECT®

[www.sciencedirect.com](http://www.sciencedirect.com)

NORTH-HOLLAND



# PHYSICS LETTERS A

Abstracted/Indexed in: Chemical Abstracts/Current Contents: Physical, Chemical and Earth Sciences/  
INSPEC

Volume 310, numbers 2-3

14 April 2003

## Contents

### General physics

**The lowest Landau level anyon equation of state in the anti-screening regime**  
S. Mashkevich and S. Ouvry 85

**Simple optical measurement of the overlap and fidelity of quantum states**  
M. Hendrych, M. Dušek, R. Filip and J. Fiurášek 95

**Shrinking quantum packets in one dimension**  
V.V. Dodonov and M.A. Andreato 101

**Emergent discrete time and quantization: relativistic particle with extra-dimensions**  
H.-T. Elze 110

**Irrversibility of entanglement manipulations: vagueness of the entanglement of cost and entanglement of distillation**  
W.-Y. Hwang and K. Matsumoto 119

**How relativity determines the Hamiltonian description of an object in classical mechanics**  
T.F. Jordan 123

**Spin zero particle propagator from a random walk in 3-D space**  
J.J. Dugne and V.A. Karmanov 131

**$P$ -,  $T$ -,  $PT$ -, and  $CPT$ -invariance of Hermitian Hamiltonians**  
Z. Ahmed 139

**Path integral for minisuperspaces and its relation with non-equivalent canonical quantizations**  
C. Simeone 143

### Nonlinear science

**Transverse and longitudinal mode coupling in a free vibrating soft string**  
E.V. Kurmyshev 148

**Exact solutions for stochastic KdV equations**  
Y. Xie 161

**Hierarchy of one- and many-parameter families of elliptic chaotic maps of  $cn$  and  $sn$  types**  
M.A. Jafarizadeh and S. Behnia 168

### Atomic, molecular and cluster physics

**Approximation to the classical Coulomb energy for atoms**  
F. Tran 177

### Plasma and fluid physics

**Generation of magnetic fields in the early Universe**  
P.K. Shukla 182

**Quantum lattice gas representation of some classical solitons**  
G. Vahala, J. Yepez and L. Vahala 187

### Nanoscience

**Melting of Cu nanoclusters by molecular dynamics simulation**  
L. Wang, Y. Zhang, X. Bian and Y. Chen 197

(continued inside)





# PHYSICS LETTERS A

Volume 310, numbers 2-3

14 April 2003

(Continued from page 4 of cover)

## Contents

### Condensed matter

**Energetics and stability within the microscopic, empirical model for finite, open-ended, single-walled carbon nanotubes**

O. Ponomarenko, M.W. Radny and P.V. Smith 203

**Mesoscopic transport through a hybrid system with toroidal carbon nanotube coupled to normal and superconducting leads**

H.-K. Zhao 207

**Non-steady-state double-resonant extremely asymmetrical scattering of waves in periodic gratings**

D.K. Gramotnev and T.A. Nieminen 214

**Spectral density approach to the one-dimensional classical Heisenberg ferromagnet with long-range interactions**

F. Cosenza, A. Cavallo and L. De Cesare 223

**Mean-field model for the interference of matter-waves from a three-dimensional optical trap**

S.K. Adhikari and P. Muruganandam 229

**Blue emission from silicon-based  $\beta$ -SiC films**

C. Tan, X.L. Wu, S.S. Deng, G.S. Huang, X.N. Liu and X.M. Bao 236

**Resonant absorption mechanism for THz frequency ultrasonic and electromagnetic waves in glasses**

M.I. Klinger and V. Halpern 241

**CONTENTS  
Direct**

This journal is part of **ContentsDirect**, the *free* alerting service which sends tables of contents by e-mail for Elsevier Science books and journals. You can register for **ContentsDirect** online at: [www.elsevier.com/locate/contentsdirect](http://www.elsevier.com/locate/contentsdirect)