

Communications in Theoretical Physics

(Submissions from both China and overseas countries are most welcome)

Vol. 57, No. 2, 2012

Contents

General

Abundant Exact Traveling Wave Solutions of Generalized Bretherton Equation via Improved (G'/G)-Expansion Method <i>M. Ali Akbar, Norhashidah Hj. Mohd. Ali, and E.M.E. Zayed</i>	173–178
Birman–Wenzl–Murakami Algebra and Topological Basis <i>ZHOU Cheng-Cheng, XUE Kang, WANG Gang-Cheng, SUN Chun-Fang, and DU Gui-Jiao</i>	179–182
Dynamic Analysis of Vibrating Systems with Nonlinearities <i>M. Kalami Yazdi, H. Ahmadian, A. Mirzabeigy, and A. Yildirim</i>	183–187
Tunneling and Self-Trapping of Superfluid Fermi Gases in BCS-BEC Crossover <i>ZHOU Yu, WANG Ying, LUO Wen-Chen, and MA Xiao-Dong</i>	188–194
Quantum Entanglement Dynamics of Two Atoms in Two Coupled Cavities <i>YANG Rong-Can, ZHANG Peng-Fei, GUO Yan-Qiang, and ZHANG Tian-Cai</i>	195–200
Standard Teleportation of One-Qubit State and Partial Teleportation of Two-Qubit State via X-States <i>QIN Meng, XU Sheng-Long, and ZHAI Xiao-Yue</i>	201–204
One-Step Generation of Multi-Qubit GHZ and W States in Superconducting Transmon Qubit System <i>GAO Gui-Long, CAI Gen-Chang, HUANG Shou-Sheng, WANG Ming-Feng, and JIANG Nian-Quan</i>	205–208
A Condition for Entropy Exchange Between Atom and Field <i>YAN Xue-Qun and LÜ Yu-Guang</i>	209–213
Three-Body Problem of H_2^+ Ion <i>LIN Qi-Hu and REN Zhong-Zhou</i>	214–216
Bäcklund Transformations and Solutions of a Generalized Kadomtsev–Petviashvili Equation <i>WANG Yun-Hu and CHEN Yong</i>	217–222
Directed Current Induced by an Symmetrically ac Force Coexisting with a Time-Delayed Feedback <i>YI Shu-Ting, SONG Hui, OU Zhi-E, AI Bao-Quan, and XIONG Jian-Wen</i>	223–226
A Specific Case of Generalized Einstein-aether Theories <i>MENG Xin-He and DU Xiao-Long</i>	227–233

(Continued)

ISSN 0253-6102
CN 11-2592/O3
Price: 80.00 Yuan

ISSN 0253-6102



Physics of Elementary Particles and Fields

- Effects of a Family Non-universal Z' Boson in $\bar{B}_d \rightarrow \mu^+ \mu^-$ and $B^- \rightarrow \pi^- \mu^+ \mu^-, \rho^- \mu^+ \mu^-$ Decays 234–240
CHANG Qin and GAO Yin-Hao
- Interaction Between Massive and Massless Gravitons by Perturbing Topological Field Theory 241–244
E. Koorambas
- Exclusive Semi-leptonic Decays $b \rightarrow s(d)\nu\bar{\nu}$ in the Standard Model with Fourth Generation 245–250
ZHANG Jiao, YUE Chong-Xing, GUO Bin, and LI Xu-Xin
- Some Recent Progress on Quark Pairings in Dense Quark and Nuclear Matter 251–270
PENG Jin-Yi, WANG Jin-Cheng, and WANG Qun

Nuclear Physics

- Rotational Property of ^{249}Cm in Particle-Triaxial-Rotor Model 271–275
ZHUANG Kai, LI Ze-Bo, and LIU Yu-Xin

Electromagnetism, Optics, Acoustics, Heat Transfer, Classical Mechanics, and Fluid Dynamics

- Non-Markovian and Markovian Dynamics of a V-type Three-Level Atom 276–280
WANG Xiao-Yun, DING Bang-Fu, LIU Jin-Feng, YAN Lin, and ZHAO He-Ping
- Bright-Dark Manakov Solitons in Biased Guest-Host Photorefractive Polymer 281–284
SU Yan-Li, JIANG Qi-Chang, JI Xuan-Mang, and XIE Shi-Jie
- Modeling of Focused Acoustic Field of a Concave Multi-annular Phased Array Using Spheroidal Beam Equation 285–289
YU Li-Li, SHOU Wen-De, and HUI Chun
- Homotopy Solution for Stagnation-Point Flow 290–294
T. Hayat, Ansa Rafique, M.Y. Malik, S.A. Shehzad, and S. Obaidat

Condensed Matter: Structural, Mechanical, and Thermal Properties

- Lattice Dynamics Study of Magnesium Chalcogenides 295–300
ZHANG Xu-Dong, LI Zhi-Jie, and SHI Gui-Mei
- Solitary Density Waves for Improved Traffic Flow Model with Variable Brake Distances 301–307
ZHU Wen-Xing and YU Rui-Ling
- Structure and Dynamics of Ethanol Adsorbed on a Mica Surface 308–314
ZHOU Bo, WANG Chun-Lei, XIU Peng, and FANG Hai-Ping

Condensed Matter: Electronic Structure, Electrical, Magnetic, and Optical Properties

- Electronic Energy Band and Transport Properties in Monolayer Graphene with Periodically Modulated Magnetic Vector Potential and Electrostatic Potential 315–319
LIU Zheng-Fang, WU Qing-Ping, and LIU Nian-Hua

Interdisciplinary Physics and Related Areas of Science and Technology

Directional Mode-Locking of Dynamics of Two-Dimensional Superparamagnetic Colloidal System in
a Periodic Pinning Array

ZHANG Zhe-Fei, DONG Yong-Qiang, and CAO Yi-Gang.....320–322

Geophysics, Astronomy, and Astrophysics

The Future of Cosmology and the Role of Non-Linear Perturbations

Adam J. Christopherson.....323–325

Path Integrals and Alternative Effective Dynamics in Loop Quantum Cosmology

QIN Li, DENG Guo, and MA Yong-Ge.....326–332