

Communications in Theoretical Physics

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

Vol. 54, No. 3, 2010

Contents

General

Symmetry Reductions and Exact Solutions of Blaszak–Marciniak Four-Field Lattice Equation <i>DONG Zhong-Zhou and CHEN Yong</i>	389–392
Invariants of Multi-Component Ermakov Systems <i>QU Chang-Zheng and YAN Lu</i>	393–396
Explicit Solutions for Generalized (2+1)-Dimensional Nonlinear Zakharov–Kuznetsov Equation <i>SUN Yu-Huai, MA Zhi-Min, and LI Yan</i>	397–400
Exact Solutions of (2+1)-Dimensional HNLS Equation <i>GUO Ai-Lin and LIN Ji</i>	401–406
A New Lie Algebra and Its Related Liouville Integrable Hierarchies <i>WANG Hui, WANG Xin-Zeng, LIU Guo-Dong, and YANG Ji-Ming</i>	407–411
Applications of Polynomial Algebras to 2-Dimensional Deformed Oscillators <i>SONG Ci, ZHANG Fu-Lin, and CHEN Jing-Ling</i>	412–416
Bipartite Entanglement Dynamics in Three Qubits System with Dzyaloshinskii–Moriya Interaction <i>ZHENG Qiang, SUN Ping, ZHANG Xiao-Ping, and REN Zhong-Zhou</i>	417–420
Coherence-Enhanced Entanglement Induced by a Two-Mode Thermal Field <i>HU Yao-Hua and FANG Mao-Fa</i>	421–426
Entanglement for Two-Qubit Extended Werner-Like States: Effect of Non-Markovian Environments <i>SHAN Chuan-Jia, LIU Ji-Bing, CHEN Tao, CHENG Wei-Wen, LIU Tang-Kun, HUANG Yan-Xia, and LI Hong</i>	427–432
Topological Effect of Reduced Quantum Trajectory in Coherence and Decoherence <i>SHI Xu-Guang, DUAN Yi-Shi, and QIN Zhi-Jie</i>	433–438
Weyl Ordering Expansion of Power Product of Coordinate and Momentum Operators <i>FAN Hong-Yi</i>	439–442
Fluctuation Analysis of Decoy State QKD with Finite Data-Set Size <i>TANG Shao-Jie and JIAO Rong-Zhen</i>	443–446
A Protocol for Bidirectional Quantum Secure Communication Based on Genuine Four-Particle Entangled States <i>GAO Gan and WANG Li-Ping</i>	447–451

(Continued)

Transferring Multi-Dimensional Quantum States and Preparing Quantum Networks in Cavity QED <i>CHEN Zi-Hong, ZHENG Xiao-Lan, and LIAO Chang-Geng</i>	452–456
Number-Conserving Coherent State in Rindler Space <i>FAN Hong-Yi</i>	457–459
A New Approach to Measurement of Heating Rate of Trapped Ions <i>XÜ You-Yang, ZHOU Fei, and XIE Yi</i>	460–462
An Efficient and Economic Scheme for Remotely Preparing a Multi-Qudit State via a Single Entangled Qudit Pair <i>ZHAN You-Bang, ZHANG Qun-Yong, SHI Jin, MA Peng-Cheng, and HU Bao-Lin</i>	463–468
Classification of Kantowski–Sachs and Bianchi Type III Space-Times According to Their Killing Vector Fields in Teleparallel Theory of Gravitation <i>Ghulam Shabbir and Suhail Khan</i>	469–472
ADM Mass for Asymptotically de Sitter Space-Time <i>HUANG Shi-Ming, YUE Rui-Hong, and JIA Dong-Yan</i>	473–476
Metric Expansion from Microscopic Dynamics in an Inhomogeneous Universe <i>Sascha Vongehr</i>	477–483
Novel Interaction Solutions to Kadomtsev–Petviashvili Equation <i>LÜ Da-Zhao, CUI Yan-Ying, LIU Chang-He, and ZHANG Meng</i>	484–488
Joule–Thomson Coefficient for Strongly Interacting Unitary Fermi Gas <i>LIAO Kai, CHEN Ji-Sheng, and LI Chao</i>	489–494
Physics of Elementary Particles and Fields	
Fermion Corrections to Mass of Scalar Glueball in QCD Sum Rule <i>YUAN Xu-Hao and TANG Liang</i>	495–498
Erratum: Quark-Antiquark and Diquark Condensates in Vacuum in Two-Flavor Four-Fermion Interaction Models with Any Color Number N_c <i>ZHOU Bang-Rong</i>	499
Nuclear Physics	
\bar{K} Condensation in Neutron Star Matter with Δ Quartet <i>DING Wen-Bo, LIU Guang-Zhou, ZHU Ming-Feng, YU Zi, XU Yan, and ZHAO En-Guang</i>	500–508
Atomic and Molecular Physics	
Quantum Impurity Models with Coupled Cluster Method <i>LIANG Jin-Jun, Clive Emery, and Tobias Brandes</i>	509–517
Calculation of Energy and Other Properties of Muonic Helium Atom Using Boundary Conditions of Wave Function <i>B. Rezaei</i>	518–520

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

- Entangled W State Generation via Adiabatic Passage in Cavity QED 521–523
MA Song-She
- Markov Quantum Feedback Control Based on Homodyne Measurement of a Two-Qubit System 524–528
ZHU Jing-Min and WANG Shun-Jin
- A Novel Investigation on Using Strain in Barriers of $1.3\text{ }\mu\text{m}$ AlGaInAs-InP Uncooled Multiple Quantum Well Lasers 529–535
Vahid Bahrami Yekta and Hassan Kaatuzian

- Integrability Aspects and Soliton Solutions for a System Describing Ultrashort Pulse Propagation in an Inhomogeneous Multi-Component Medium 536–544
GUO Rui, TIAN Bo, Lü Xing, ZHANG Hai-Qiang, and XU Tao

Condensed Matter: Structural, Mechanical, and Thermal Properties

- First-Principles Calculations of Atomic and Electronic Properties of Tl and In on Si(111) 545–550
DAI Xian-Qi, ZHAO Jian-Hua, SUN Yong-Can, WEI Shu-Yi, and WEI Guo-Hong

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

- Study of Thermodynamics of Liquid Noble-Metals Alloys Through a Pseudopotential Theory 551–558
Aditya M. Vora
- Anomalous Hall Effect in Spin-Polarized Two-Dimensional Hole Gas with Cubic-Rashbsa Spin-Orbit Interaction 559–562
REN Li and MI Yi-Ming
- Spin Polarizations of Electron with Rashba Couplings in T-Shaped Devices: A Finite Element Approach 563–572
ZHU Song, LIU Hui-Ping, and YI Lin
- Some Properties of Si, Ge, and α -Sn Using Pseudopotential Theory 573–577
P.S. Vyas, B.Y. Thakore, P.N. Gajjar, and A.R. Jani

Interdisciplinary Physics and Related Areas of Science and Technology

- Dynamic Evolution with Limited Learning Information on a Small-World Network 578–582
DONG Lin-Rong
- Spiral Wave in Small-World Networks of Hodgkin–Huxley Neurons 583–588
MA Jun, YANG Li-Jian, WU Ying, and ZHANG Cai-Rong