

Communications in Theoretical Physics

Vol. 66, No. 1, 2016

Contents

General

One-Dimensional Optimal System and Similarity Reductions of Wu-Zhang Equation Na Xiong, Yu-Qi Li, Jun-Chao Chen, and Yong Chen	1-11
Conformable Fractional Nikiforov-Uvarov Method H. Karayer, D. Demirhan, and F. Büyükkılıç	12-18
Axiomatization of Special Relativity in First Order Logic Yi-Chen Luo, Lei Chen, Wan-Ting He, Yong-Ge Ma, and Xin-Yu Zhang	19-28
Controllable Discrete Rogue Wave Solutions of the Ablowitz-Ladik Equation in Optics Xiao-Yong Wen	29-34
Lie Symmetry Analysis and Conservation Laws of a Generalized Time Fractional Foam Drainage Equation Li Wang, Shou-Fu Tian, Zhen-Tao Zhao, and Xiao-Qiu Song	35-40
Barut-Girardello Coherent States for Nonlinear Oscillator with Position-Dependent Mass Naila Amir and Shahid Iqbal	41-48
Supersymmetry and SWKB Approach to Dirac Equation with Hyperbolic Scarf Potential N. Akbarzadeh and A. Chenaghlu	49-52
Vortices in a Rotating Spin-Orbit-Coupled Bose-Einstein Condensate under Extreme Elongation in a Harmonic Plus Quartic Trap Guang-Ping Chen, Si-Lin Chen, Zheng-Wei Xie, Xiao-Fei Zhang, and Shou-Gang Zhang	53-58
Modified Nonlinear Model of Arcsin-Electrodynamics S.I. Kruglov	59-65
A Spatial Domain Quantum Watermarking Scheme Zhan-Hong Wei, Xiu-Bo Chen, Shu-Jiang Xu, Xin-Xin Niu, and Yi-Xian Yang	66-76
Tunneling Radiation of Massive Vector Bosons from Dilaton Black Holes Ran Li, Jun-Kun Zhao, and Xing-Hua Wu	77-83
CTE Solvability, Nonlocal Symmetry and Explicit Solutions of Modified Boussinesq System Bo Ren and Xue-Ping Cheng	84-92

Physics of Elementary Particles and Fields

CP-Violation from Spin-1 Resonances in a Left-Right Dynamical Higgs Context Kun-Ming Ruan, Jing Shu, and Juan Yepes	93-103
--	--------

(Continued)

ISSN 0253-6102
CN 11-2592/O3
Price: 108.00 Yuan

ISSN 0253-6102



9 770253 610110

07>

Nuclear Physics

- Analytical Derivations of Single-Particle Matrix Elements in Nuclear Shell Model
Aziz H. Fatah, R.A. Radhi, and Nzar R. Abdullah 104–114

- An Isoratio Method and an Isoratio Scaling Phenomenon in Heavy-Ion Collisions
Chun-Wang Ma and Chun-Yuan Qiao 115–121

- An Isoratio Method to Study Free Energy and Temperature Effects in Intermediate Mass Fragments Produced in Heavy-Ion Collisions
Chun-Wang Ma, Chun-Yuan Qiao, Tian-Tian Ding, Fei Niu, Yi-Dan Song, and Yi-Fei Niu 122–128

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

- Ultra-Low Threshold Optical Bistability and Multi-Stability in Dielectric Slab Doped with Semiconductor Quantum Well
R. Nasehi 129–132

- Mixed Convective Viscoelastic Nanofluid Flow Past a Porous Media with Soret–Dufour Effects
M. Ramzan, Farhan Yousaf, M. Farooq, and Jae Dong Chung 133–142

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

- Study of Transport Properties in Armchair Graphyne Nanoribbons: A Density Functional Approach
S. Golafrooz Shahri, M.R. Roknabadi, N. Shahtahmasebi, and M. Behdani 143–148

Geophysics, Astronomy, and Astrophysics

- Reconstruction of $f(R)$ Gravity with Ordinary and Entropy-Corrected (m, n) -Type Holographic Dark Energy Model
Prabir Rudra 149–154