Contents

Harald Stumpf
Electric Spark Discharges in Water. Low-energy Nuclear Transmutations and Light Leptonic Magnetic Monopoles in an Extended Standard Model —— 689

Chuanzhong Li and Anni Meng
On the Full-Discrete Extended Generalised q-Difference Toda System —— 703

Adnan Aslam, Sahyan Ahmad and Wei Gao
On Certain Topological Indices of Boron Triangular Nanotubes —— 711

Jürgen Bosse
Lorentz Atom Revisited by Solving the Abraham–Lorentz Equation of Motion —— 717

Pradip Roul and Ujwal Warbhe
A New Homotopy Perturbation Scheme for Solving Singular Boundary Value Problems Arising in Various Physical Models —— 733

Zhong Han and Yong Chen
Bright-Dark Mixed N-Soliton Solution of Two-Dimensional Multicomponent Maccari System —— 745

Andrey Leonidovich Rozov
Modelling of Electrodynamical Phenomena in Slowly Moving Media —— 757

Sanjay Kumar Pandey and Jagdish Prasad Maurya
Exploration of Characteristics Governing Dynamics of Whirlwinds: Application to Dust Devils —— 763

Lei Liu, Bo Tian, Xiao-Yu Wu and Yu-Qiang Yuan
Vector Dark Solitons for a Coupled Nonlinear Schrödinger System with Variable Coefficients in an Inhomogeneous Optical Fibre —— 779