

# Table of Contents

**Volume 11 Number 1**
**January 2023**
**A Flux Ratio Independent of the Permanent Charge in PNP Models**

- G. J. Lin..... 1

**Event-Triggered Finite-Time  $H_\infty$  Filtering for Discrete-Time Nonlinear Stochastic Systems**

- A. Q. Zhang, Y. Y. Dong..... 13

**Onto Orthogonal Projections in the Space of Polynomials  $P_n[x]$** 

- J.-F. Niglio..... 22

**Option Pricing Model Driven by G-Lévy Process under the G-Expectation Framework**

- Y. M. Xu, Y. Li..... 46

**Application of HAM for Nonlinear Integro-Differential Equations of Order Two**

- Z. Eshkuvatov, D. Khayrullaev, M. Nurillaev, S. M. Mahali, A. Narzullaev..... 55

**Determination of Solar Radius and Earth's Radius by Relativistic Matter Wave**

- H. Y. Cui..... 69

**Solution of Laguerre's Differential Equations via Modified Adomian Decomposition Method**

- M. Al-Mazmumy, A. A. Alsulami..... 85

**Hölder Derivative of the Koch Curve**

- G. J. Yang, X. L. Yang, P. Wang..... 101

**How to Make Systems of Nonlinear Autonomous ODEs with Attractor-Behavior, by First Making the General Solutions: Part Two**

- M. Stensland..... 115

**Fermi Function and Its Applications**

- A. A. Elahwel, N. A. ALjalali, M. Barbash, A. M. Awin..... 135

**Collatz Conjecture Redefinition on Prime Numbers**

- R. Carbó-Dorca..... 147

**Atomization Theorems in Mathematical Physics and General Relativity**

- S. Yu. Eremenko..... 158

**A Filtered Milne-Simpson ODE Method with Enhanced Stability Properties**

- A. Aluthge, S. A. Sarra..... 192

**Solution to the “Three-Body Problem” in the Light of the Maximum Ordinality Principle,  
as a “Suggestion” for a *Ri-Orientation* of the Present Scientific Perspective in “Favor” of  
the “Irreducible Quality”**

C. Giannantoni.....209

**Modification of the Convergence of GG-PPA for Solving Generalized Equations**

A. Alom, Z. Rahman, B. Gazi, I. Hossain.....260

**The Worlds on the Other Side of the Big Bang**

A. Khugaev, E. Bibaeva.....276

**Research on Vector Road Data Matching Method Based on Deep Learning**

L. Zhao, Y. R. Liu, Y. F. Lu, Y. Sun, J. Li, K. Z. Yao.....303

**The Alpha Power Topp-Leone Distribution: Properties, Simulations and Applications**

J. C. Ehiwario, J. N. Igabari, P. E. Ezimadu.....316

**The Application of Thermomechanical Dynamics (TMD) to the Analysis of  
Nonequilibrium Irreversible Motion and a Low-Temperature Stirling Engine**

H. Uechi, L. Uechi, S. T. Uechi.....332