

## TABLE OF CONTENTS

**Volume 2 Number 2**

**February 2011**

### **G-Type Seismic Wave in Magnetoelastic Monoclinic Layer**

- A. Chattopadhyay, S. Gupta, A. K. Singh, S. A. Sahu.....145

### **Formulation of the Post-Newtonian Equations of Motion of the Restricted Three Body Problem**

- F. A. A. El-Salam, S. A. El-Bar.....155

### **Reservoir Multiscale Data Assimilation Using the Ensemble Kalman Filter**

- S. R. Akella.....165

### **Hyperbolic Fibonacci and Lucas Functions, “Golden” Fibonacci Goniometry, Bodnar’s Geometry, and Hilbert’s Fourth Problem**

- A. Stakhov, S. Aranson.....181

### **On the Distribution of Type II Errors in Hypothesis Testing**

- S. Thompson.....189

### **Wavelet Bases Made of Piecewise Polynomial Functions: Theory and Applications**

- L. Fatone, M. C. Recchioni, F. Zirilli.....196

### **Alienor Method for Nonlinear Multi-Objective Optimization**

- M. Maimos, B. O. Konfe, S. Koussoube, B. Some.....217

### **Complementing the Lagrangian Density of the E. M. Field and the Surface Integral of the p-v Vector Product**

- M. Rashid.....225

### **Uniqueness of Meromorphic Functions Concerning Differential Monomials**

- H. Huang, B. Huang.....230

### **Improving AOR Method for a Class of Two-by-Two Linear Systems**

- C. X. Li, S. L. Wu.....236

### **Mathematical Modeling of Diffusion Phenomenon in a Moderately Constricted Geometry**

- S. Mishra, N. K. Verma, S. U. Siddiqui.....241

### **Matrix Padé-Type Method for Computing the Matrix Exponential**

- C. J. Li, X. J. Zhu, C. Q. Gu.....247

### **Generalized Abel Inversion Using Homotopy Perturbation Method**

- S. Kumar, O. P. Singh, S. Dixit.....254

### **The First Integral Method for Solving Maccari’s System**

- D. Rostamy, F. Zabihi, K. Karimi, S. Khalehoghli.....258

### **Mathematical Model of Blood Flow in Small Blood Vessel in the Presence of Magnetic Field**

- R. Bali, U. Awasthi.....264

---

The figure on the front is from the article published in Applied Mathematics, 2010, Vol. 2, No. 2, pp. 181-188 by Alexey Stakhov and Samuil Aranson.