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Topics

Plasticity, Fracture, and Damage Mechanics Mechanics of Nanomaterials Fluid-Structure Interaction Damage Identification and Non Destructive Evaluation (NDE) Computational and Experimental Mechanics Geomechanics and Mechanics of Granular Materials Flows in Porous Media Impact and Multibody Dynamics Nonlinear Dynamics, Structural Dynamics, and Control Dynamic Instability and Buckling Vibrations, Acoustics, and Noise Control Manufacturing Processes Advanced Materials and Smart Structures Micro Electromechanically Systems (MEMS) Mechatronics Transport Phenomena in Micro/Nanoscale Aerodynamics and Aeroelasticity Computational Fluid Dynamics (CFD) v Turbulence and Multiphase Flows Biomechanics and Biomaterials v Surface Engineering and Contact Mechanics Heat and Mass Transfer Compressible Flows Applications

Articles:

TVD and ENO Applications to Supersonic Flows in 2D – Part II
Authors: Edisson Sávio De Góes Maciel, Eduardo Manfredini Ferreira

Thermochemical Non-Equilibrium Reentry Flows in Two-Dimensions: Seven Species Model - Part I
Authors: Edisson Sávio De Góes Maciel, Amilcar Porto Pimenta

Specific Peculiarities of the Jets Penetrating the Liquid Pool of Different Density under Severe Accidents at the NPP Conditions and their Modeling and Simulation
Authors: Ivan V. Kazachkov, Vahid Hasani Moghaddam

Determination of Onboard Coplanar Orbital Maneuvers with Orbits Determined using GPS
Authors: Ana Paula Marins Chiaradia, Antonio Fernando Bertachini De Almeida Prado, Hélio Koiti Kuga

The Geometric Effect on the Evolution of a Long Bubble in a Circular Contraction Tube Followed by an Expansion Tube
Authors: G.-C. Kuo, C.-H. Hsu, C.-C. Chang,Y.-H. Hu, W.-L. Liaw, K.-J. Wang, K.-Y. Kung, Yute Chen

Optimal Low-Thrust Trajectories to Reach the Asteroid Apophis

Authors: D. P. S. Santos, A. F. B. A. Prado

Explicit and Implicit TVD and ENO High Resolution Algorithms Applied to the Euler and Navier-Stokes Equations in Three-Dimensions – Turbulent Results
Authors: Edisson Sávio De Góes Maciel

Numerical Study of Solid Particles-Based Airlift Pump Performance
Authors: A.-F. Mahrous

Novel Metaheuristic Algorithms Applied to Optimization of Structures
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Explicit and Implicit TVD High Resolution Schemes in 2D
Authors: Edisson Sávio De Góes Maciel

Simulation of Fully Coupled Thermomechanical Analysis of Disc Brake Rotor
Authors: Ali Belhocine, Mostefa Bouchetara

Windage Power Loss in Spur Gear Sets
Authors: Fakher Chaari, Manel Ben Romdhane, Walid Baccar, Taher Fakhfakh, Mohamed Haddar

TVD Flux Vector Splitting Algorithms Applied to the Solution of the Euler and Navier-Stokes Equations in Three-Dimensions – Part II
Authors: Edisson Sávio De Góes Maciel

TVD Flux Vector Splitting Algorithms Applied to the Solution of the Euler and Navier-Stokes Equations in Three-Dimensions – Part I
Authors: Edisson Sávio De Góes Maciel

Simulation and Modeling of Physical Vapor Deposition (PVD) Process
Authors: Ali Moarrefzadeh

Machine Tools Foundation Static and Free Vibration Analyses
Authors: Thamir Salah, Suhair G. Hussain, Wedad AlAzzawy

Study of Workpiece Thermal Profile in Electrical Discharge Machining (EDM) Process
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Fuzzy-Rule-Based Faults Classification of Gearbox Tractor
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Assisted Creative Robot Arm Assembly and Control Program Design
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Numerical Study of Transition Process in a Separated Boundary Layer on a Flat Plate with Two Different Leading Edges
Authors: Zhiyin Yang

Nonlinear Static Analysis to Assess Seismic Performance and Vulnerability of Code - Conforming RC Buildings
Authors: A. Cinitha, P. K. Umesha, Nagesh R. Iyer

Determination of Relaxation and Retardation Spectrum from Modulus of Complex Frequency-Domain Material Functions
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Distinguishing Profile Deviations from a Part's Deformation Using the Maximum Normed Residual Test
Authors: Ali Aidibe, Antoine S. Tahan, Gad N. Abenhaim

Algorithm of the Maintenance Activities Optimization with an Approximate Solution to the Problem of Scheduling Preventive Task
Authors: Aissam Aboussalim, Mohamed Mediouni

Plane Wave Based Method: Analytic Integration and Frequency Behaviour
Authors: Soufien Essahbi, Emmanuel Perrey-Debain, Mabrouk Ben Tahar, Lotfi Hammami, Mohamed Haddar