

# Contents

<b>A Cutting Hyperplane Method for Generalized Monotone Nonlipschitzian Multivalued Variational Inequalities .....</b>	<b>1</b>
Pham Ngoc Anh and Takahito Kuno	
<b>Robust Parameter Estimation Based on Huber Estimator in Systems of Differential Equations .....</b>	<b>13</b>
Tanja Binder and Ekaterina Kostina	
<b>Comparing MIQCP Solvers to a Specialised Algorithm for Mine Production Scheduling .....</b>	<b>25</b>
Andreas Bley, Ambros M. Gleixner, Thorsten Koch, and Stefan Vigerske	
<b>A Binary Quadratic Programming Approach to the Vehicle Positioning Problem .....</b>	<b>41</b>
Ralf Borndörfer and Carlos Cardonha	
<b>Determining Fair Ticket Prices in Public Transport by Solving a Cost Allocation Problem .....</b>	<b>53</b>
Ralf Borndörfer and Nam-Dũng Hoàng	
<b>A Domain Decomposition Method for Strongly Mixed Boundary Value Problems for the Poisson Equation .....</b>	<b>65</b>
Dang Quang A and Vu Vinh Quang	
<b>Detecting, Monitoring and Preventing Database Security Breaches in a Housing-Based Outsourcing Model .....</b>	<b>77</b>
Tran Khanh Dang, Tran Thi Que Nguyet, and Truong Quynh Chi	
<b>Real-Time Sequential Convex Programming for Optimal Control Applications .....</b>	<b>91</b>
Tran Dinh Quoc, Carlo Savorgnan, and Moritz Diehl	

<b>SuperQuant Financial Benchmark Suite for Performance Analysis of Grid Middlewares</b> .....	103
Abhijeet Gaikwad, Viet_Dung Doan, Mireille Bossy, Françoise Baude, and Frédéric Abergel	
<b>A Dimension Adaptive Combination Technique Using Localised Adaptation Criteria</b> .....	115
Jochen Garcke	
<b>Haralick's Texture Features Computation Accelerated by GPUs for Biological Applications</b> .....	127
Markus Gipp, Guillermo Marcus, Nathalie Harder, Apichat Suratanee, Karl Rohr, Rainer König, and Reinhard Männer	
<b>Free-Surface Flows over an Obstacle: Problem Revisited</b> .....	139
Panat Guayjarernpanishk and Jack Asavanant	
<b>The Relation Between the Gene Network and the Physical Structure of Chromosomes</b> .....	153
Dieter W. Heermann, Manfred Bohn, and Philipp M. Diesinger	
<b>Generalized Bilinear System Identification with Coupling Force Variables</b> .....	169
Jer-Nan Juang	
<b>Reduced-Order Wave-Propagation Modeling Using the Eigensystem Realization Algorithm</b> .....	183
Stephen A. Ketcham, Minh Q. Phan, and Harley H. Cudney	
<b>Complementary Condensing for the Direct Multiple Shooting Method</b> .....	195
Christian Kirches, Hans Georg Bock, Johannes P. Schlöder, and Sebastian Sager	
<b>Some Inverse Problem for the Polarized-Radiation Transfer Equation</b> .....	207
A.E. Kovtanyuk and I.V. Prokhorov	
<b>Finite and Boundary Element Energy Approximations of Dirichlet Control Problems</b> .....	219
Günther Of, Thanh Xuan Phan, and Olaf Steinbach	
<b>Application of High Performance Computational Fluid Dynamics to Nose Flow</b> .....	233
I. Pantle and M. Gabi	
<b>MaxNet and TCP Reno/RED on Mice Traffic</b> .....	247
Khoa T. Phan, Tuan T. Tran, Duc D. Nguyen, and Nam Thoai	

**Superstable Models for Short-Duration Large-Domain Wave Propagation** ..... 257  
Minh Q. Phan, Stephen A. Ketcham, Richard S. Darling,  
and Harley H. Cudney

**Discontinuous Galerkin as Time-Stepping Scheme for the Navier–Stokes Equations** ..... 271  
Th. Richter

**Development of a Three Dimensional Euler Solver Using the Finite Volume Method on a Multiblock Structured Grid**..... 283  
Tran Thanh Tinh, Dang Thai Son, and Nguyen Anh Thi

**Hybrid Algorithm for Risk Conscious Chemical Batch Planning Under Uncertainty** ..... 293  
Thomas Tometzki and Sebastian Engell

**On Isogeometric Analysis and Its Usage for Stress Calculation** ..... 305  
Anh-Vu Vuong and B. Simeon

**On the Efficient Evaluation of Higher-Order Derivatives of Real-Valued Functions Composed of Matrix Operations**..... 315  
Sebastian F. Walter

**Modeling of Non-ideal Variable Pitch Valve Springs for Use in Automotive Cam Optimization** ..... 325  
Henry Yau and Richard W. Longman