

Contents

Contents	v
Nonlinear Optimization Subject to a System of Fuzzy Relational Equations with Max-min Composition	1
<i>Pingke Li, Shu-Cherng Fang, Xingzhou Zhang</i>	
Problem Solving by General Purpose Solvers	10
<i>Toshihide Ibaraki</i>	
Development of a Decision Support Tool for Supply Network Planning: A Case Study from the Chemical Industry	18
<i>Martin Grunow, Hans-Otto Gnther</i>	
Optimal Control Policy for Stochastic Inventory Systems with Multiple Types of Reverse Flows	25
<i>Sean X. Zhou, Zhijie Tao, Xiuli Chao</i>	
Australian Dollars Exchange Rate and Gold Prices: An Interval Method Analysis	46
<i>Ai Han, Shanying Xu, Shouyang Wang</i>	
Approximation Algorithm of Minimizing Makespan in Parallel Bounded Batch Scheduling	53
<i>Jianfeng Ren, Yuzhong Zhang, Sun Guo</i>	
The Monitoring of the Network Traffic based on Queuing Theory	60
<i>Jian-Ping Wang, Yong Huang</i>	
An Approximation Solution to the ELS Model for Perishable Inventory with Backlogging	66
<i>Qingguo Bai, Jianteng Xu, Yuzhong Zhang</i>	
Minimizing the Total Late Work on an Unbounded Batch Machine	74
<i>Jianfeng Ren, Yuzhong Zhang, Sun Guo</i>	
Quadratic Programming for the Vehicle Routing Problem	82
<i>Ping Ji, Hongtao Wu, Yongzhong Wu</i>	
Study on Winning Probabilities of Two-versus-Two Stochastic Duel with Searching	91
<i>Kai Nie, Zhong Liu</i>	

Departure Processes of a Tandem Network	98
<i>Zhaotong Lian, Ning Zhao, Liming Liu</i>	
A Novel Prediction Method for Stock Index Applying Grey Theory and Neural Networks	104
<i>Yan Shen</i>	
A Primal-Dual Interior-Point Filter Method for Nonlinear Semidefinite Programming	112
<i>Zhong-Yi Liu, Wen-Yu Sun</i>	
The Equilibrium Equivalent Representation for Variational Inequalities Problems with Its Application in Mixed Traffic Flows	119
<i>Baibai Fu, Ziyou Gao</i>	
A Case Study of Optimal Ambulance Location Problems	125
<i>Hozumi Morohosi</i>	
A Note on Mixed Set Programming	131
<i>Jiayang Zhou</i>	
Risk Management Analyses on Measuring the Robustness of the Water Supply Network System in Tokyo	141
<i>Fithriyah, Hiroshi Ashida, Hozumi Morohosi, Tatsuo Oyama</i>	
Characterizing the Hierarchy of Road Network and its Landscape Effect with Graph Theory	152
<i>Shiliang Liu, Yuhong Dong</i>	
Coordinated Pricing and Inventory in A System with Minimum and Maximum Production Constraints	160
<i>Juliang Zhang, Yi Li</i>	
A Nonmonotone Trust Region Algorithm Model for Minimization of Locally Lipschitzian Functions	166
<i>Houchun Zhou, Min Xi</i>	
Computing Lower Bounds for Steiner Trees in Road Network Design	172
<i>Justus Schwartz, Jüg Stückelberger</i>	
Approximate Maximum Edge Coloring Within Factor 2: a Further Analysis	182
<i>Wangsen Feng, Ping Chen, Bei Zhang</i>	
Analysis of a Machine Repair System with Warm Spares and N-Policy Vacations	190
<i>Dequan Yue, Wuyi Yue, Honhjuan Qi</i>	
Improving Supplier's Performance Using Common Replenishment Epochs in a Vendor-Managed Inventory System	199
<i>Juhwen Hwang, Su-Hwa Wu, Yu-Yen Huang</i>	
Heuristic Algorithms for the Fixed-Charge Multiple Knapsack Problem	207
<i>Byungjun You, Takeo Yamada</i>	

On Minimizing the Numbers of ADMs– Better Bounds for an Algorithm with Preprocessing	219
<i>Su-Xia Cui, Ji-Guo Yu, Bao-Xiang Cao</i>	
Selecting Journals of University Library to Stop Subscription by OR/MS Approach	231
<i>Atsuo Suzuki, Masanori Fushimi, Masaki Nishio</i>	
Retrial Queues with Limited Number of Retrials: Numerical Investigations	237
<i>Yang Woo Shin, Dug Hee Moon</i>	
Districting Problem for Several Emergency Service Units and Evaluation of Districts	248
<i>Keisuke Inakawa, Atsuo Suzuki</i>	
A Cointegration Analysis of the Relationships among Tax Revenue and Macroeconomic Factors in China	260
<i>Meng-Yao Zhang, Jin-Chuan Cui</i>	
Application to a University Course Timetabling Problem by a General Project Scheduler	266
<i>Masanori Horio, Atsuo Suzuki</i>	
Coordinating Multi-Period Capacity Allocation and Order Scheduling via Optimization and Simulation	274
<i>Shao-ju Lee, Ming-Hsuang Lee</i>	
A Continuous-time Inventory Model with Procurement from Spot Market	282
<i>Kimitoshi Sato, Katsushige Sawaki</i>	
A Tabu Search Based Algorithm for Cargo Loading Problem	292
<i>Li Pan, Joshua Z. Huang, Sydney C.K. Chu</i>	
A Dynamic Lot Size Model for Seasonal Products with Shipment Scheduling	303
<i>Hiroyuki Wakinaga, Katsushige Sawaki</i>	
A Randomized Distributed Algorithm for Total Scheduling Problem	311
<i>Lan Xiao, Guiying Yan, Wei Ren, Xu Li</i>	
Reputation-based Contents Crawling in Web Archiving System	317
<i>Hiroyuki Kawano</i>	
Acyclic Edge Colorings of Planar Graphs Without Short Cycles	325
<i>Xiang-Yong Sun, Jian-Liang Wu</i>	
Improved Model and Algorithm for Determining Correlation of Trend Sequences	330
<i>Yin Chen</i>	
GIS-based Solution of Vehicle Scheduling and Routing Problems in Day-care Center	336
<i>Hiroyuki Kawano, Masahiro Kokai, Wuyi Yue</i>	
Scheduling Jobs on a Single Machine with Inventory Operations	344
<i>Bao-Qiang Fan, Guo-Chun Tang, Shu-Xia Zhang</i>	

Design and Implementation of a Network Emulator using Virtual Network Stack	351
<i>Yusuke Sugiyama, Kunio Goto</i>	
Analysis of a Geom/G/1 Queue with General Limited Service and MAVs	359
<i>Zhanyou Ma, Wuyi Yue, Naishuo Tian</i>	
A Perturbation-Guided Oscillation Strategy for the Multidimensional Knapsack Problem with Generalized Upper Bound Constraints	369
<i>Vincent Chiwei Li</i>	
Global Optimality Conditions for Optimization Problems	377
<i>Zhiyou Wu</i>	
A Purchasing Decision Support System for a Rental Company	385
<i>Ruohui Yang, Peter Cowling, Keshav Dahal, Victoria Horsfield</i>	
Resources Allocation Problem for Local Reserve Depots in Disaster Management Based on Scenario Analysis	395
<i>Jianming Zhu, Jun Huang, Degang Liu, Jiye Han</i>	
A Modified Pattern Search Approach for Unconstrained Optimization Problem	408
<i>Xin-Wei Lu, Fu-Li Rong</i>	
Medical Treatment Capability Analysis using Queuing Theory in a Biochemical Terrorist Attack	415
<i>Juyun Wang, Hua Yu, Jianyu Luo, Jie Sui</i>	
A Hybrid Metaheuristic for the Lot Streaming Problem in Job Shops	425
<i>Udo Buscher, Liji Shen</i>	
Multilocus Analysis of Case-control Data to Schizophrenia Based on Measures of Information Discrepancy	432
<i>Junhua Zhang, Weihua Yue, Xiang-Sun Zhang</i>	
Improvement of Demand Forecasting Accuracy: A Method Based on Region-Division	440
<i>Guoshan Liu, Yuanyuan Lu</i>	
Optimal Configurations of Cell Automata to Generate Test Stimuli for VLSI	447
<i>Masanori Fushimi, Tohru Hadano</i>	
Disjoint Multi-linear Optimization in Imprecise Decision Analysis	451
<i>Xiaosong Ding, Jihong Zhang</i>	
The application of fuzzy programming to the aggregate production planning-markdown pricing problem	457
<i>Wenyun Zhu</i>	
Traffic Jamming in Disordered Flow Distribution Networks	465
<i>Bing Wang, Kazuyuki Aihara, Luonan Chen</i>	
An Arbitrary Starting Simplicial Algorithm for Constructively Proving Tarski's Fixed Point Theorem on an n-dimensional Box	470
<i>Chuangyin Dang</i>	

A Method of Designing Energy Tax Rate Based On Game Theory	477
<i>Ying Li, Jin-Chuan Cui</i>	
Determining Arc Segment Significance in Two Idealized Road Networks	485
<i>Mingzhe Li, Justin Yates</i>	
On Integrated Convex Optimization in Normed Linear Space	496
<i>Jinshan Li, Xiang-Sun Zhang</i>	
Author Index	504