

Contents

Preface	vii
1	
Single-Layer Cuts for Multi-Layer Network Design Problems	1
<i>Arie M. C. A. Koster, Sebastian Orlowski, Christian Raack, Georg Baier, and Thomas Engel</i>	
2	
Optimal Multi-Channel Assignments in Vehicular Ad-Hoc Networks	25
<i>Hanan Luss and Wai Chen</i>	
3	
The Label-Constrained Minimum Spanning Tree Problem	39
<i>Yupei Xiong, Bruce Golden, Edward Wasil, and Si Chen</i>	
4	
Ex-Post Internet Charging	59
<i>Joseph P. Bailey, Jose Nagel, and S. Raghavan</i>	
5	
Error Bounds for Hierarchical Routing	81
<i>Eric Rosenberg</i>	
6	
An Entropy Based Method to Detect Spoofed Denial of Service (DoS) Attacks	101
<i>Willa K. Ehrlich, Kenichi Futamura, and Danielle Liu</i>	
7	
Mobile Networks Competition and Asymmetric Regulation of Termination Charges	123
<i>Livio Cricelli, Francesca Di Pillo, Massimo Gastaldi, and Nathan Levialdi Ghiron</i>	
8	
A Package Bidding Tool for the FCC's Spectrum Auctions, and its Effect on Auction Outcomes	153
<i>Karla Hoffman, Dinesh Menon, and Susara A. van den Heever</i>	

9		
Comparison of Heuristics for Solving the GMLST Problem <i>Yiwei Chen, Namrata Cornick, Andrew O. Hall, Ritvik Shajpal, John Silberholz, Inbal Yahav, and Bruce L. Golden</i>	191	
10		
Optimizing the Node Degree in Wireless Multihop Networks with Single-Lobe Beamforming <i>Christian Hartmann, Moritz Kiese, and Robert Vilzmann</i>	219	
11		
Fluid Model of an Internet Router Under the MIMD Control Scheme <i>Urtzi Ayesta, Alexei B. Piunovskiy, and Y. Zhang</i>	239	
12		
Optimal Survivable Routing with a Small Number of Hops <i>Luís Gouveia, Pedro Patrício, and Amaro de Sousa</i>	253	
13		
Communication Constraints and Ad Hoc Scheduling <i>Steven Weber</i>	275	
14		
Topology Control in a Free Space Optical Network <i>Yohan Shim, Steven Gabriel, Stuart Milner, and Christopher Davis</i>	291	
15		
A Local Search Hybrid Genetic Algorithm Approach to the Network Design Problem with Relay Stations <i>Sadan Kulturel-Konak and Abdullah Konak</i>	311	
16		
Dynamic Bandwidth Reservation in a Virtual Private Network under Uncertain Traffic <i>Hélène Le Cadre and Mustapha Bouhtou</i>	325	
17		
Evaluation and Design of Business Models for Collaborative Provision of Advanced Mobile Data Services: A Portfolio Theory Approach <i>Alexei A. Gaivoronski and Josip Zoric</i>	353	