Editorial

Special Issue for some new progress made by
AMSS and Kyoto University
on mathematical methods for informatics, engineering and management

This special issue presents some new progress in mathematical methods for informatics, engineering and management that is expected to trigger thought and deepen further research. For this purpose, 14 papers were selected mainly from the invited talks at the CAS-Kyoto University Joint Workshop on Mathematical Methods for Informatics, Engineering and Management, held in Beijing, China on April 8–9, 2008, and at the Joint Workshop of Beijing, Hong Kong and Kyoto on Computational Mathematics, Computer and Systems Sciences held in Kyoto, Japan on March 14–15, 2009.

All the selected papers went through a standard review process of the journal. The authors of some papers made necessary revisions in terms of reviewing comments. The selected papers include "Nonparametric approach to identifying Narx systems" by Qijiang Song and Han-Fu Chen, "Optimal channel estimation and multiuser detection in a randomly-spread CDMA channel" by D Keigo Takeuchi, Mikko Vehkaperae, Toshiyuki Tanaka, and Ralf R. Mueller, "Consensus control for leader-following multi-agent systems with measurement noises" by Cui-Qin Ma, Tao Li, and Ji-Feng Zhang, "Systematic design of single carrier overlap frequency domain equalization" by Wladimir Bocquet, Kazunori Hayashi, and Hideaki Sakai, "Fuzzy-based network bandwidth design under demand uncertainty" by Lean Yu, Wuyi Yue, and Shouyang Wang, "A combinatorial aspects of a discrete-time semi-infinite Lotka-Volterra equation" by Shuhei Kamioka and Satoru Mizutani, "The conditional diagnosability of Shuffle-Cubes" by Min Xu, Xiaodong Hu, and Song-Pu Shang, "Testing k-edge-connectivity of digraphs" by Yuichi Yoshida and Hiro Ito, "On the observability and detectability of linear stochastic systems with Markov jumps and multiplicative noise" by Yuan-Hua Ni, Wei-Hai Zhang, and Hai-Tao Fang, "Bayesian image superresolution and hidden variable modeling" by Atsunori Kanemura, Shin-ichi Maeda, Wataru Fukuda, and Shin Ishii, "Ergodicity of linear SPDE driven by Levy noise" by Zhao Dong and Yingchao Xie, "Determinant solutions of the nonautonomous discrete Toda equation associated with the deautonomized discrete KP hierarchy" by Satoshi Tsujimoto, "Two-scale finite element Green's function approximations with applications to electrostatic potential computation" by Ying Yang and Aihui Zhou, "A weighted product method for bidding strategies in multi-attribute auctions" by Mingxi Wang, Shulin Liu, Shouyang Wang, and Kin Keung Lai.

The guest editors hope that the papers published in this special issue would be of value to academic research and engineering practice and would provide a clearer sense of direction for further research, as well as inspiring researchers in the related research fields to explore more creative contributions. The guest editors would like to place on record their sincere thanks to Prof. L. Guo, the Editor-In-Chief of Journal of Systems Science and Complexity, for this very special opportunity provided to us for contributing to this special issue.

The guest editors have to thank all the referees for their kind support and help. Finally, the guest editors would like to thank the authors of all the submissions to this special issue for their contribution. Without the support of the authors and the referees, it would have been impossible to make this special issue for our readers.

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Guest Editors
October, 2009