

# Preface

Information systems, now more than ever, are a vital part of modern societies. They are used in many of our everyday actions, including our online social network interactions, business and bank transactions, and sensor communications, among many others. The rapid increase in their capabilities has enabled us with more powerful systems, readily available to sense, control, disperse, and analyze information.

In 2013, we were honored to host the Fifth International Conference on the Dynamics of Information Systems. The conference focused on sensor networks and related problems, such as signal and message reconstruction, community and cohesive structures in complex networks and state-of-the-art approaches to detect them, network connectivity, cyber and computer security, and stochastic network analysis.

The Fifth International Conference on the Dynamics of Information Systems was held in Gainesville, Florida, USA, during February 25–27, 2013.

There were four plenary lectures:

- **Roman Belavkin**, Middlesex University, UK  
*Utility, Risk and Information*
- **My T. Thai**, University of Florida, USA  
*Interdependent Networks Analysis*
- **Viktor Zamaraev**, Higher School of Economics, Russia  
*On coding of graphs from hereditary classes*
- **Jose Principe**, University of Florida, USA  
*Estimating entropy with Reproducing Kernel Hilbert Spaces*

All manuscripts submitted to this book were independently reviewed by at least two anonymous referees. Overall, this book consists of ten contributed chapters, each dealing with a different aspect of modern information systems with an emphasis on interconnected network systems and related problems.

The conference would not have been as successful without the participation and contribution of all the attendees and thus we would like to formally thank them. We would also like to extend a warm thank you to the members of the local organizing committee and the Center for Applied Optimization.

We would also like to extend our appreciation to the plenary speakers and to all the authors who worked hard on submitting their research work to this book. Last, we thank Springer for making the publication of this book possible.

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