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Algorithmic Game Theory

4th International Symposium, SAGT 2011
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Proceedings

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Preface

The present volume is devoted to the Fourth International Symposium on Algorithmic Game Theory (SAGT), an interdisciplinary event intended to provide a forum for researchers and practitioners to exchange innovative ideas and to be aware of each other's approaches and findings. The main focus of SAGT is on the study of the algorithmic aspects of game theory; typical questions include how scarce computational resources affect the way games between selfish agents are played and the impact of selfishness on the quality of the outcome of a multi-player system. This is a departure from traditional algorithmic theory in which players are supposed to be cooperative.

The algorithmic approach to game theory has been applied primarily to problems from economics and computer science (e.g., auctions, network and routing problems). I believe though that this approach can be used to pose new questions and to give answers to problems in other fields like physics and biology and hope SAGT will be one of the fora that make this convergence happen.

SAGT 2011 took place in Amalfi (Italy) from October 17th to October 19th, 2011. The present volume contains all contributed papers that were presented at SAGT 2011 together with an abstract of the distinguished invited lectures of Bruno Codenotti (Consiglio Nazionale delle Ricerche, Pisa, Italy) and Xiaotie Deng (University of Liverpool, Liverpool, UK). The two invited lectures are found at the beginning of the volume and the regular papers appear in the order of presentation at the symposium.

In response to the call for papers, the Program Committee received 65 submissions of which 10 were co-authored by a Program Committee member. These submissions were handled by a special sub-committee that proposed to accept six. For the remaining submissions, 20 were selected for inclusion in the scientific program of the symposium after a detailed evaluation (each submission was read by at least three Program Committee members) and electronic discussion.

We wish to thank the creator of the EasyChair System, a free conference management system, which was very helpful in the selection of the scientific program.

July 2011

Giuseppe Persiano

Organization

SAGT 2011 was organized by the Dipartimento di Informatica “Renato M. Capocelli” of the Università degli Studi di Salerno, in cooperation with the ACM Special Interest Group on Electronic Commerce (ACM-SIGECOM) and the European Association for Theoretical Computer Science (EATCS).

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