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# Algorithmic Game Theory

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# Preface

The present volume is devoted to the Fifth 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). We believe 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 2012 took place in the Technical University of Catalonia, Barcelona (Spain), during October 22–23, 2012. The present volume contains all contributed papers that were accepted at SAGT 2012 in alphabetical order by author.

In response to the call for papers, the Program Committee received 44 submissions of which 22 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. Papers co-authored by a Program Committee member were handled by a special sub-committee.

We would like to thank all of the authors who submitted papers and the members of the Program Committees, the external reviewers, and the Organizing Committee.

We gratefully acknowledge the support from the Software Department and the ALBCOM research group from Universitat Politècnica de Catalunya, as well as the financial support from Universitat Politècnica de Catalunya and the Generalitat de Catalunya.

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 and in the preparation of this volume

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