

# Preface

This volume contains the revised and selected papers from the 14th edition of the International Multi-Agent-Based Simulation (MABS) workshop series (<http://www.pcs.usb.br/~mabs>). Since its inception in 1998, the MABS workshop has remained one of the leading scientific forums where high-quality research focusing on the nexus between multiagent systems and social sciences has been reported. It has attracted researchers interested in the application of agent-based simulation for social science research and has enabled the application of insights from social theories to the development and design of multiagent systems. The MABS workshop series has thus provided a solid platform in promoting interdisciplinary and crossdisciplinary research in the field and has attracted researchers with a wide range of backgrounds and expertise.

Following previous editions, this year's MABS main themes included simulation methodologies, simulation of social and economic behavior, and application. Additionally, we solicited papers addressing empirical simulations, MABS that link real-world data in real time, provenance and ontology-driven simulation, and the methods of validating multiagent-based simulations. We received 29 submissions, of which 14 were selected for presentation in the 1.5 days allocated to the workshop. Eleven revised papers are included in this volume.

A recurring theme throughout this year's workshop was the relation of models to data, including the challenges of model validation and verification. (Validation is usually defined as "making the right model," that is, one that meets the needs of the customer, while verification is "making the model right," that is, avoiding programming errors.) The round table discussion that closed the first day's session centered on this theme, with participants actively sharing positions and experiences ranging from an insistence on solid testing with real data to the case for abstract models that explore theoretical constructs and are not intended to align in detail with real data. Our keynote speaker Dr. Charles Macal's invited presentation also focused on validation, drawing on his extensive experience with large models of real-world situations whose users demand clear validation.

The workshop clearly raised consciousness among the MABS community of the importance of considering validation in the life cycle of a model, and provided numerous examples and guidelines of how this can be done. One delegate observed that in some cases, a paper about the validation of a model would be a worthwhile separate publication alongside a paper that motivates a model and describes its behavior. Coupled with the increasing popularity of the ODD protocol for detailed specification of models to enable replication, we are moving toward a tri-partite scheme for a fully documented model in applied domains: main paper to motivate and describe lessons learned, ODD protocol to enable others to replicate the work, and detailed validation study.

MABS workshops have always been held in conjunction with the world's leading conference on autonomous and multiagent systems AAMAS (International Joint Conference on Autonomous Agents and Multiagent Systems). This year's MABS was held with the 12th AAMAS conference in the beautiful city of St. Paul, Minnesota, in the United States. We are grateful to the 2013 AAMAS conference chair Maria Gini and the workshop chairs Satoshi Kurihara and Wolfgang Ketter for their role in the successful organization of this year's MABS workshop. We are also thankful to the AAMAS local organizers for providing us with excellent technical and infrastructural support. We are indebted to the MABS Steering Committee and its coordinator Jaime Sichman for giving us the opportunity to organize the 2013 MABS and for their encouragement and positive feedback throughout this time. Last but not least, we are thankful to the members of the Program Committee for providing constructive and useful reviews of the submitted papers in time, which is no doubt one of the hallmarks of the MABS workshop series.

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