Social simulation has a dialectical relationship to artificial Intelligence (AI), in general, and multi-agent systems (MAS), in particular. It is both an area for the application of methods, techniques and technologies of AI and MAS, as well as a source of inspiration for new theories, models, and methods for AI and MAS, because it draws upon the theories, models, and methods of the social sciences (anthropology, sociology, political science, economy, government, management, etc.).

The first edition of the Brazilian Workshop on Social Simulation (BWSS 2008) was held in October 2008 in Salvador, BA, Brazil, and co-located with SBIA 2008. The second edition of the workshop (BWSS 2010) was a two-day event co-located with the Joint Conference SBIA/SBRN/JRI 2010, which happened in São Bernardo do Campo, SP, Brazil, on October 2010.

The third edition of the workshop (BWSS 2012) was a three-day event co-located with the BRACIS 2012 Conference, which happened in Curitiba, PR, Brazil, on October 20–25, 2012.

The workshops addressed theoretical, methodological, technical, and instrumental issues concerning the area of simulation of social systems and, thus, had an interdisciplinary character.

Theories and models of societies and smaller social systems that embody a computational concern were at the center of the event. Micro-level and macro-level issues concerning structures and processes at the social and individual levels, as well as the mutual influences between such conceptual levels, and problems of upward and downward causation between them were also contemplated.

Techniques, tools, and computational environments for the simulation of those models, especially those based on agent and multi-agent technologies, and AI methods in general, were of primary concern.

Applications of social simulation to various areas of the social sciences (anthropology, sociology, political science, economy, government, management, education, health, etc.) were also discussed by the audience, as were related subjects (emergency services, policy making, financial risk management, natural disaster management, national security, armed conflict, etc.)

BWSS 2012 featured two keynote speakers:

- **Dr. Armando Geller (Group W and George Mason University, USA)**, who talked about the use of social simulation by security professionals and aid and relief practitioners in areas affected by armed conflict.
• Prof. Dr. Alan Kirman (GREQAM, AMU and EHESS Marseille, France), who presented a discussion on individual and collective rationality in complex systems.

A panel was coordinated by Prof. Dr. Helder Coelho (Universidade de Lisboa). The invited panel speakers were Dr. Armando Geller (Group W and George Mason University, USA), Prof. Dr. Alan Kirman (GREQAM, AMU and EHESS Marseille, France), Prof. Dr. Jaime Sichman (USP, Brazil), and Prof. Dr. Bruno Reis (UFMG, Brazil). The panel speakers discussed themes related to the future of social simulation, looking to the tendencies of computation and complexity sciences, namely, agents and artificial intelligence.

In this edition of the workshop, we were also concerned about offering a general overview of the research on social simulation in Brazil, in order to allow for possible future cooperative projects. Then, besides the sessions with the long presentations of high-quality technical papers, BWSS 2012 also promoted two special sessions with short presentations: one for Brazilian research groups and/or projects in social simulation and the other for position papers on initial or ongoing work.

The workshops relied on an international Program Committee for their success. The committee included well-known researchers from Brazil and abroad. The topics of interest of the accepted technical papers were mainly about:

• Theoretical foundations of social simulation
• Methods and models for social simulation
• AI and MAS tools, techniques, models, and environments for social simulation
• Applications of social simulation.

This post-proceedings of BWSS 2012 includes four invited papers by Dr. Armando Geller, Prof. Dr. Alan Kirman, Prof. Dr. Helder Coelho, and Prof. Dr. Jaime Sichman, in which they discuss the general ideas they had outlined in their talks at the workshop, and a selection of 17 revised papers: 15 long papers and 2 short papers.

We would like to express our sincere thanks to all Program Committee members for their cooperation in the reviewing process. We appreciate very much their efforts and fast feedback, which guaranteed the high quality of the technical program and of this publication.

We are also grateful to SBC, CAPES, and IEEE, for their technical and financial support to the workshop and to the organization of this volume.
Finally, we would like to thank the authors, first for submitting their work to the workshop and also for their time and interest in revising their papers in order to accommodate all of the suggestions and requests of the Program Committee.

We believe that the papers published in this volume are of high technical quality, and we hope that the readers will enjoy this publication.

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*BWSS 2012 Proceedings Editors*