## Contents

### MABS for Real-Time and Online Data

Dynamically Tracking the Real World in an Agent-Based Model ................. 3  
*H. Van Dyke Parunak, S. Hugh Brooks, Sven Brueckner, and Ravi Gupta*

Large-Scale Multi-agent-Based Modeling and Simulation of Microblogging-Based Online Social Network .................. 17  
*Maíra Gatti, Paulo Cavalin, Samuel Barbosa Neto, Claudio Pinhanez, Cícero dos Santos, Daniel Gribel, and Ana Paula Appel*

### Formal Approaches in MABS: Design and Validation

Dynamic Identity Model for Agents ........................................... 37  
*Joana Dimas and Rui Prada*

Verification and Validation of Agent-Based Simulations Using Approximate Model Checking .............................. 53  
*Benjamin Herd, Simon Miles, Peter McBurney, and Michael Luck*

Validating Simulated Networks: Some Lessons Learned ................. 71  
*Shah Jamal Alam, S.M. Ali Abbas, and Bruce Edmonds*

### MABS in Environmental Modeling

The MAELIA Multi-Agent Platform for Integrated Analysis of Interactions Between Agricultural Land-Use and Low-Water Management Strategies .......................................................... 85  
*Benoit Gaudou, Christophe Sibertin-Blanc, Olivier Therond, Frédéric Amblard, Yves Auda, Jean-Paul Arcangeli, Maud Balestrat, Marie-Hélène Charron-Moirez, Etienne Gondet, Yi Hong, Romain Lardy, Thomas Louail, Eunate Mayor, David Panzoli, Sabine Sauvage, José-Miguel Sánchez-Pérez, Patrick Taillandier, Nguyen Van Bai, Maroussia Vavasseur, and Pierre Mazzega*

Globalisation, Regionalisation and Behavioural Responses of Land Use Agents ............................................ 101  
*Calum Brown, Dave Murray-Rust, Jasper van Vliet, Shah Jamal Alam, Peter H. Verburg, and Mark D. Rounsevell*
Simulating the Expansion of Large-Sized Farms in Rural Netherlands:
A Land Exchange Model .............................................................. 115
  Shah Jamal Alam, Martha M. Bakker, Eleni Karali,
  Jerry van Dijk, and Mark D. Rounsevell

Simulating Social Phenomena

Multi-Agent-Based Simulation of Mycobacterium Tuberculosis Growth . . . 131
  Pablo Werlang, Michel Q. Fagundes, Diana F. Adamatt,
  Karina S. Machado, Andrea von Groll,
  Pedro E.A. da Silva, and Adriano V. Werhli

Who Creates Housing Bubbles? An Agent-Based Study ...................... 143
  Jiaqi Ge

Towards Simulating the Impact of National Culture on Organizations. . . . 151
  Loïs Vanhée, Frank Dignum, and Jacques Ferber

Author Index ................................................................................. 163
Multi-Agent-Based Simulation XIV
International Workshop, MABS 2013, Saint Paul, MN, USA, May 6-7, 2013, Revised Selected Papers
Alam, S.J.; Dyke Parunak, H.V. (Eds.)
2014, X, 163 p. 50 illus., Softcover
ISBN: 978-3-642-54782-9