

# Contents

## Models and Technical Innovations

SUMO's Road Intersection Model. . . . .	3
<i>Jakob Erdmann and Daniel Krajzewicz</i>	
Basic Driving Dynamics of Cyclists . . . . .	18
<i>Erik Andresen, Mohcine Chraïbi, Armin Seyfried, and Felix Huber</i>	
Implementation of an Energy Model and a Charging Infrastructure in SUMO. . . . .	33
<i>Tamás Kurczveil, Pablo Álvarez López, and Eckehard Schnieder</i>	
Agent-Based Traffic Simulation Using SUMO and JADE: An Integrated Platform for Artificial Transportation Systems. . . . .	44
<i>Guilherme Soares, Zafeiris Kokkinogenis, José Luiz Macedo, and Rosaldo J.F. Rossetti</i>	
Sumo as a Service – Building up a Web Service to Interact with SUMO . . . .	62
<i>Mario Krumnow</i>	
SUMOPy: An Advanced Simulation Suite for SUMO . . . . .	71
<i>Joerg Schweizer</i>	
3D Visualization for Microscopic Traffic Data Sources . . . . .	83
<i>Matthew Fullerton, Andreas Wenger, Mathias Baur, Florian Schimandl, Jonas Lüßmann, and Silja Hoffmann</i>	
<b>Applications and Surveys</b>	
Driver Attitude and Its Influence on the Energy Waste of Electric Buses . . . .	99
<i>Deborah Perrotta, José Luiz Macedo, Rosaldo J.F. Rossetti, João Luiz Afonso, Zafeiris Kokkinogenis, and Bernardo Ribeiro</i>	
Hybrid Location Management in Vehicular City Environments . . . . .	109
<i>Aisling O'Driscoll and Dirk Pesch</i>	
Real-Time Simulations Based on Live Detector Data – Experiences of Using SUMO in a Traffic Management System . . . . .	136
<i>Mario Krumnow and Andreas Kretschmer</i>	
Real-Time Traffic Conditions with SUMO for ITS Austria West. . . . .	146
<i>Karl-Heinz Kastner, Robert Keber, Petru Pau, and Martin Samal</i>	

SUMO in Scientific Literature, 2002–2012. . . . .	160
<i>Daniel Krajzewicz</i>	
<b>Author Index</b> . . . . .	175