Michael Behrisch · Daniel Krajzewicz
Melanie Weber (Eds.)

Simulation of Urban Mobility

First International Conference, SUMO 2013
Berlin, Germany, May 15–17, 2013
Revised Selected Papers

Springer

Contents

Models and Technical Innovations

SUMO's Road Intersection Model 3
Jakob Erdmann and Daniel Krajzewicz

Basic Driving Dynamics of Cyclists 18
Erik Andresen, Mohcine Chraibi, Armin Seyfried, and Felix Huber

Implementation of an Energy Model and a Charging Infrastructure in SUMO 33
Tamás Kurczveil, Pablo Álvarez López, and Eckehard Schnieder

Agent-Based Traffic Simulation Using SUMO and JADE: An Integrated Platform for Artificial Transportation Systems 44
Guilherme Soares, Zafeiris Kokkinogenis, José Luiz Macedo, and Rosaldo J.F. Rossetti

Sumo as a Service – Building up a Web Service to Interact with SUMO 62
Mario Krumnow

SUMOPy: An Advanced Simulation Suite for SUMO 71
Joerg Schweizer

3D Visualization for Microscopic Traffic Data Sources 83
Matthew Fullerton, Andreas Wenger, Mathias Baur, Florian Schimandl, Jonas Lüßmann, and Silja Hoffmann

Applications and Surveys

Driver Attitude and Its Influence on the Energy Waste of Electric Buses 99
Deborah Perrotta, José Luiz Macedo, Rosaldo J.F. Rossetti, João Luiz Afonso, Zafeiris Kokkinogenis, and Bernardo Ribeiro

Hybrid Location Management in Vehicular City Environments 109
Aisling O'Driscoll and Dirk Pesch

Real-Time Simulations Based on Live Detector Data – Experiences of Using SUMO in a Traffic Management System 136
Mario Krumnow and Andreas Kretschmer

Real-Time Traffic Conditions with SUMO for ITS Austria West 146
Karl-Heinz Kastner, Robert Keber, Petru Pau, and Martin Samal

SUMO in Scientific Literature, 2002–2012 160
Daniel Krajzewicz

Author Index 175