# ABMUS2018
# the 3rd International Workshop
# on Agent-Based Modelling
# of Urban Systems

15th of July 2018
held in Stockholm, Sweden,
at the Federated AI Meeting (FAIM2018)


Conference Venue:
Stockholmsmässan
Mässvägen 1, 125 80 Älvsjö
Room K13


## Draft programme (may be subject to change)


08:00-08:30 *registration*

08:30-08:45 welcome
08:45-09:30 presentations Theme 1: Smart cities and energy
09:30-10:00 discussion

10:00-10:30 *coffee break*

10:30-11:00 presentations Theme 2: Agent methodologies for cities
11:00-11:45 presentations Theme 3: Urban planning
11:45-12:20 discussion
12:20-13:00 lightning talks other workshop participants

12:30-14:00 *lunch break*

14:00-14:45 presentations Theme 4: Urban transport
14:45-15:15 discussion
15:15-15:30 discussion on publishing proceedings and special issue

15:30-16:00 *coffee break*

16:00-16:45 presentations Theme 5: Housing markets
16:45-17:15 discussion
17:15-17:45 community meeting and planning ABMUS2019
17:45-18:00 closing


A full list of workshop papers and presentations is presented on the next page. Workshop pre-proceedings with all accepted extended abstracts will be made available on http://www.modelling-urban-systems.com/abmus2018

## Theme 1: Smart cities and energy

- **Nicolas Verstaevel**, Johan Barthelemy and Pascal Perez – Multi-Agent and Smart Buildings: What? and Why?
- **Graciela Del Carmen Nava Guerrero**, Helle Hvid Hansen, Gijsbert Korevaar and Zofia Lukszo – Agent-based modelling of a neighborhood's transition towards gas-free heating
- **Nick Malleson**, Jon Ward, Alison Heppenstall, Michael Adcock, Daniel Tang and Tomas Crols – Understanding Input Data Requirements and Quantifying Uncertainty for Successfully Modelling 'Smart' Cities

## Theme 2: Agent methodologies for cities

- **Tahina Ralitera**, Nathan Aky, Denis Payet and Rémy Courdier – Steps Towards Scalable Agent-Based Simulation Model: Impact of the Time Scheduling Approach
- **Cédric Grueau** and João Araújo – A framework to improve trust in Agent-Based Models of Human-Environment Interactions

## Theme 3: Urban planning
- **Toshiyuki Kaneda**, Manabu Ichikawa, Hikaru Uchida, Masakazu Takahashi, Reiko Hishiyama, Koichi Moriyama, Yuanyuan Liu, Sohei Inagaki, Tomohiko Kino, Youtaro Maekawa and Yoshimasa Matsumoto – Simulation Sciences of Dense Space Management by Artificial Society Approach
- Liu Yang, Lufeng Zhang and **Koen H. van Dam** – Combining agent-based simulation and air pollutant emission calculations to evaluate the impact of land-use and infrastructure changes on air quality in Beijing
- Javier Sandoval-Felix, **Manuel Castañón-Puga**, Carelia Gaxiola-Pacheco and Eugenio Dante Suarez – Computational testing of urban planning policies performance: a case study of the Land Use Compatibility Matrix of Ensenada, México

## Theme 4: Urban transport

- **Tomas Crols** and Nick Malleson – Simulating Urban Flows of Daily Routines of Commuters
- Wenwen Zhang, Henning Mortveit and **Samarth Swarup** – Estimating Shared Autonomous Vehicle Fleet Size to Meet Urban Daily Travel Demand
- **Jason Thompson**, Jasper Wijnands, Mark Stevenson, Suzanne Mavoa and Katherine Scully – Evidence for the 'safety in density' effect for cyclists; val-idation of agent-based modelling results

## Theme 5: Housing markets

- Stefano Picascia, Ali Termos and **Neil Yorke-Smith** – Initial Results from an Agent-Based Simulation of Housing in Urban Beirut
- **Robert Tanton**, Pascal Perez, Chris Pettit, Jinjing Li, Simone Zarpelon Leao and Yogi Vidyattama – Small Area Coupling of a Synthetic Census, Microsimulation and ABM Applied to Mortgage Taxation in Australia
- **Gideon Aschwanden**, Jason Thompson, Friedrich Burkhard von der Osten, Viet Nguyen and Zita Ulman – Agent Based Modeling of the Australian Housing Market


## Lightning talks

During this session any workshop participants who have not submitted an abstract to ABMUS2018 are given the opportunity to very briefly introduce their research to the rest of the group in 2-3 minutes (without powerpoint slides).