The 12th International Workshop on Agent-based Mobility, Traffic and Transportation Models (ABMTRANS-2023)

Summary Report 17.8.2023

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Introduction

The 12th International Workshop on Agent-based Mobility, Traffic and Transportation Models (ABMTRANS-2023) was held in conjunction with the 14th International Conference on Ambient Systems, Networks and Technologies in Leuven, Belgium. Spanning three days March 15 - 17, 2023, the workshop provided a unique platform for researchers, practitioners, and particularly MATSim users to meet, network, and discuss the latest advancements in the field. The workshop featured five distinct technical sessions, each focusing on different aspects of agent-based mobility and transportation (link to program):

- ABMTRANS-1: Keynote Speaker II, Technical Sessions on agent-based mobility.
- ABMTRANS-2: Technical Sessions on shared autonomous vehicles, equity analysis of freight transportation, and MATSim applications.
- ABMTRANS-3: Technical Sessions on electric vehicle charging pricing design and agent-based traffic microsimulation.
- ABMTRANS-4: Technical Sessions on shared bike-bus lanes, congestion-mitigating policies, and accessibility by shared autonomous vehicles.
- ABMTRANS-S4: Workshop Session chaired by Luk Knapen & Ansar Yasar, focusing on various topics including shared bike-bus lanes, electric vehicle charging, and congestion-mitigating policies.

The ABMTRANS workshop stands out as one of the few conferences where MATSim users can meet and network. This gathering fosters collaboration and innovation within the community, making it a vital event for those working with MATSim, an open-source framework for large-scale agent-based transport simulations.

Personal Presentation

I had the opportunity to present my paper titled "Possible Congestion-Mitigating Carrot-and-Stick Transport Policies for Jerusalem" (Ben-Dor, G., Ogulenko, A., & Benenson, I., 2023). The paper explores innovative transportation policies for Jerusalem, emphasizing the use of both incentives and penalties to mitigate congestion. It was published in Procedia Computer Science, volume 220, pages 741-746, and can be accessed here. https://doi.org/10.1016/j.procs.2023.03.098
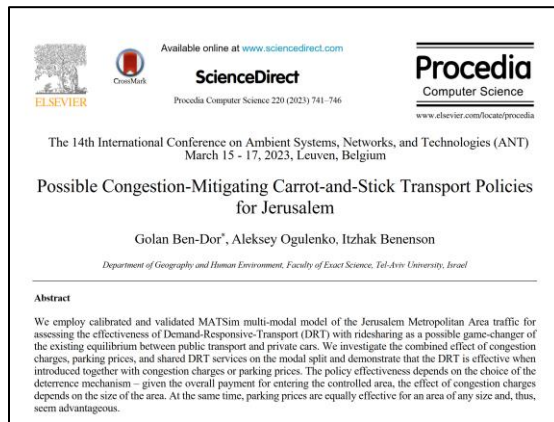
Workshop Session: ABMTRANS-S4
Session Chair: Luk Knapen & Ansar Yasar, Hasselt University, Belgium
Location: Room 3

Assessing Impacts of Shared Bike-Bus Lanes on Bus Operations
Husain Aziz, Shanjeeda Akter
Possible Congestion-Mitigating Carrot-and-Stick Transport Policies for Jerusalem
Golan Ben-Dor, Aleksey Ogulenko, Itzhak Benenson
Accessibilities by shared autonomous vehicles under different regulatory scenarios
Dominik Ziemke, Joschka Bischoff
Electric Vehicle Charging Pricing Design for Agent-Based Traffic Microsimulation
Arsham Bakhtiari, Ashraf Uz Zaman Patwary, Francesco Ciari

Reflection on the Presentation Experience and personal note

While I was honored to present my research, I must note that being the last speaker in the session of the third day (17.5.23) did not allow me ample time to network on my research. Nevertheless, the audience showed interest in the topic, and the presentation was well-received. But as the presentation is published in the highly regard Procedia Computer Science journal, my presentation will get the exposure nonetheless.

I would also like to suggest put the banquet dinner during the conference and not on the last day. I would like to extend my heartfelt thanks to the ISTRC for the opportunity to present so close to the completion of my PhD. Their support over the years has been invaluable, the opportunity to present at ABMTrans 2023 enabled me to network and even receive offers for postdoctoral positions, which I am currently considering.

Conclusion

The ABMTRANS-2023 workshop was a significant event in the field of agent-based mobility, traffic, and transportation models. The diverse technical sessions, coupled with the unique opportunity for MATSim users to network, made it a valuable experience for all attendees. My personal experience, despite the timing of my presentation, was positive, and I found the engagement and interest from the audience encouraging.

The support from Hasselt University played a vital role in the success of the event, reflecting the global interest and commitment to advancing the field of agent-based transportation simulation.