An integrated simulation environment for autonomous mobility on demand in Zurich

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Abstract for the Swiss Transport Research Conference 2018

An integrated simulation environment for Autonomous Mobility on Demand in Zurich

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Over the course of the past two years research activities around fleets of automated vehicles have been conducted in the Swiss context. First, a thorough assessment of costs and prices of automated vehicles (Bösch et al., 2018) has been undertaken, including numerous factors from fuel to maintenance, dispatching and cleaning of the vehicles. Second, a stated choice survey has been conducted (Becker and Axhausen, 2017) which explores how people in the canton of Zurich, Switzerland would change their travel behaviour once a fleet of automated vehicles becomes available. Third, a simulation platform based on the agent- and activity-based simulation framework MATSim (Horni et al., 2016) has been developed that allows for the simulation of automated vehicle services with highly customizable fleet characteristics (Hörl, 2017). The paper will present the combination of those three components into an integrated simulation environment that allows for detailed demand estimation and assessment of future scenarios for Autonomous Mobility on Demand systems.

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