

Modeling E-Hailing Mobility Services on A Transportation Network

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Abstract: E-Hailing plays a key role in emerging transportation mobility services, such as ridesourcing, ridesharing, among others. We present a general equilibrium framework to model the behavior and interactions of the major players in e-hailing services on a transportation network. The framework can help analyze customers' choices of different services, based on their value of time and the charging schemes of the services, as well as the overall impact of the services to network level traffic congestion.

Bio: Dr. Xuegang (Jeff) Ban is an Associate Professor at the Civil and Environmental Engineering Department of University of Washington. He received his B.S. and M.S. in Automobile Engineering from Tsinghua University, and his M.S. in Computer Sciences and Ph.D. in Transportation Engineering from the University of Wisconsin at Madison. His research interests are in Transportation Network System Modeling and Simulation, Urban Traffic Modeling and Control, and Transportation Data Analytics. He is an Editor / Associate Editor of *IEEE Transactions on Intelligent Transportation Systems*, *Transportation Research Part C*, and *Journal of Intelligent Transportation Systems*, and serves on the editorial board of *Transportation Research, Part B*, *Networks and Spatial Economics*, and *Transportmetrica B*. He is a member of the Network Modeling Committee (ADB30) and a member of the Vehicle-Highway Automation Committee (AHB30) of the Transportation Research Board (TRB), under the National Academies. He received the 2011 CAREER Award from the National Science Foundation (NSF), and the New Faculty Award from the Council of University Transportation Centers (CUTC) and the American Road & Transportation Builders Association (ARTBA) in 2012.