

Civil and Environmental Engineering

Present

A stable matching analysis framework for Mobility-as-a-Service platforms as two-sided markets

Speaker:

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Mobility-as-a-Service systems encompass ecosystems of multiple mobility service operators ranging from fixed route transit services to micro-transit, taxis, carshare, and micro-mobility. A generalized assignment modeling framework based on evaluating such a system as a cyber-physical platform economy with a two-sided market is presented. Such a framework allows modelers to explicitly capture traveler (route choice), operator (service design, market entry), and platform behavior (subsidies). New developments that consider co-existing mobility-on-demand operators will be presented along with future directions toward day-to-day dynamics, platform design problems, stochastic route assignment, and electrification applications.

Bio: Dr. Joseph Chow is an Institute Associate Professor at the NYU Tandon School of Engineering's Civil and Urban Engineering Department with affiliations at CUSP and Rudin Center for Transportation Policy & Management. Chow is an NSF CAREER award recipient, a former Canada Research Chair, and the co-founding Deputy Director of the C2SMART University Transportation Center at NYU. He is the Chair of the Subcommittee on Route Choice & Spatiotemporal Behavior at TRB and former TSL Cluster Chair and elected Urban Transportation SIG Chair at INFORMS. He has published about 80 journal articles since 2010 and is an editor for three transportation journals including Transportation Research Part B. Dr. Chow received his PhD ('10) at UC Irvine and his MEng ('01) and BS ('00) at Cornell University.



Friday, October 14, 2022
12:20 – 1:10 PM
McHugh Hall (MCHU) - Room 106