Mathematics Colloquium

Stuck in Traffic

Richard Sowers
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Department of Industrial and Enterprise Systems Engineering
University of Illinois

Friday, January 24, 2020
4:10 – 5:00 p.m.
Building 53 Room 201

Abstract

We discuss how mathematics can play a role in analyzing large-scale traffic patterns. In particular, we discuss, time permitting, up to three problems; understanding the interplay of traffic and safety, application of matrix factorization to traffic data, and understanding the topology of congestion. A traffic data set from New York city will be used to illustrate all problems. The problems will be accessible to a broad undergraduate audience, and the techniques will be accessible to an advanced mathematical undergraduate audience.

About the speaker: Richard Sowers is a Professor in both the Department of Mathematics and the Department of Industrial and Enterprise Systems Engineering at the University of Illinois. He earned an undergraduate and master's degree in Electrical Engineering (from Drexel University and the University of Maryland, respectively), and a Ph.D. in Applied Mathematics (from the University of Maryland). He has consulted in government and private industry. His interests are stochastic behavior, data-driven analysis, and quantitative modelling, with applications in agriculture, healthcare, and traffic.

Cookies will be provided before the talk at 4 p.m.
in the same room as the talk, Building 53 Room 201.