Every day Metro Transit implements transit service across the region, with the main purpose of providing 250,000 trips to destinations. As a secondary consequence of the service, a repeated time-varying network of data points is generated on how the municipal area functions: where people are going from and to, the speeds and delays of transit vehicles, occurrences of mobility-limited boardings, bicycle-bus connections, and more. These data can be in turn analyzed and modeled to create usable planning information today, and are envisioned to support real-time transportation optimization in the future of connected vehicles. In this talk I describe the advantages and challenges of acting to analyze and interpret these data for decision makers, focusing on concrete examples of fine-grained bus speed, people throughput in urban corridors, and ridership patterns.

BIO:
Eric M. Lind is Manager of Research and Analytics in the Strategic Initiatives group at Metro Transit, the largest public transportation provider in the Minneapolis-St. Paul metropolitan area. Eric has a Ph.D in Ecology from the University of Maryland and worked as a researcher in quantitative ecology at the University of Minnesota before joining Metro Transit in 2017. He uses the statistical and analytical skills he developed exploring ecosystem dynamics to aid Metro Transit in understanding the similarly complex systems of human interaction with a transportation network. His work has included models to predict new operator longevity with the agency, measure efficiencies of their internal systems, explain preferences and behavior of customers, and forecast trends in performance. He still considers himself an entomologist.