Abstract: The sharing economy, a term we use to refer to business models built around on-demand access to products and services mediated by online platforms that match many small suppliers or service providers to many small buyers, has emerged as an important area of study in operations. We first describe three "canonical" applications that have garnered much attention from the operations community: (1) peer-to-peer resource sharing, (2) on-demand service platforms, and (3) on-demand rental networks. We use these applications to highlight distinguishing features of sharing economy business models and to point out research questions that are new. For each application, we describe our attempt at addressing some of these questions. We conclude by drawing connections between classical operations theory/models and theory/models that have been used to study sharing economy applications. Dr. Benjaafar’s talk will draw on material from many of his published works.

Bio: Saif Benjaafar is the Seth Bonder Collegiate Professor at the University of Michigan where he is a leading initiative on the Future Supply Chain. Prior to joining the University of Michigan, he was McKnight Presidential Endowed Professor and Distinguished McKnight University Professor at the University of Minnesota where he also served as Head and Founder of the Department of Industrial & Systems Engineering. He is a founding member of the Singapore University of Technology and Design where he served as Pillar Head (at the rank of Dean) of Engineering Systems and Design. He has broad research interests in operation management (supply chains, service systems, and markets) and other applications of optimization, stochastic modeling, and game theory. His current research focus is on sustainable operations and innovative business models, including sharing economy, on-demand services, and online marketplaces. He is a board member of Hourcar, a social car sharing organization. He is a Fellow of INFORMS and IIE and is the current Editor in Chief of the INFORMS journal Service Science.