

“Agent Computing as a Technology for Integrating Micro-data (including Geo-data) into Models”

Rob Axtell, George Mason and Santa Fe Institute

In this talk I will compare ABMs with competitor technologies (e.g., machine learning, social network analysis, microeconometrics, deep learning, Bayesian networks) vis-a-vis the ability to make use of fine-grained social data. I will focus on three examples in which individual-level data have proven crucial in model construction: fisheries management, the recent housing market bubble, and the U.S. private sector. In each of these areas the ability of ABMs to ‘eat’ a variety of micro-data proved crucial for accurately representing human behavior, leading to the success of the applications.