Institute for Mathematical Sciences

DISTINGUISHED VISITOR LECTURE SERIES

Philip J. Reny
The University of Chicago

Photo Credit: The University of Chicago

12 and 13 July 2018, 11.30am – 12.30pm
IMS Auditorium
3 Prince George's Park Singapore 118402

Perfect Conditional epsilon-Equilibria of Multi-Stage Games with Infinite Sets of Signals and Actions

We extend Kreps and Wilson's concept of sequential equilibrium to games where the sets of actions that players can choose from and the sets of signals that players may observe are infinite. This covers a broad set of dynamic strategic interactions such as bargaining, signaling games, and repeated games. As the games are infinite, there are serious difficulties with testing rational behavior at unreached signals. To address the difficulties, we propose the notion of perfect conditional equilibrium distributions and establish their existence.

How to Count Citations If You Must

Citation indices are regularly used to inform critical decisions about promotion, tenure, and the allocation of billions of research dollars. Nevertheless, most indices (e.g., the h-index) are motivated by intuition and rules of thumb, resulting in undesirable conclusions. In contrast, five natural properties lead us to a unique new index, the Euclidean index, that avoids several shortcomings of the h-index and its successors. The Euclidean index is simply the Euclidean length of an individual's citation list. Two empirical tests suggest that the Euclidean index outperforms the h-index in practice.

"Game theory studies decision-making among multiple entities—such as people or governments—in a strategic setting. How far ahead one thinks and their ability to predict how the other will react will affect how well they do."

Photo credit: Pexels

About the speaker

Philip J. Reny is the Hugo F. Sonnenschein Distinguished Service Professor in Economics and the College at the University of Chicago and a member of the American Academy of Arts and Sciences (2015). His current research focuses on the existence of Nash equilibrium in discontinuous games, methodologies for analyzing rational behavior in extensive form games with infinite actions and types, and optimal mechanism design with multi-dimensional private information. Reny serves on the board of editors for the American Economic Journal: Microeconomics and was the head editor of Journal of Political Economy. He is also a Fellow of the Econometric Society (1996), the Society for the Advancement of Economic Theory (2012), and the Game Theory Society (2017).