“Characterizing Pareto Optima: Sequential Utilitarian Welfare Maximization”

Abstract

We characterize Pareto optimality via sequential utilitarian welfare maximization: a utility vector $u$ is Pareto optimal if and only if there exists a finite sequence of non-negative (and eventually positive) welfare weights such that $u$ maximizes utilitarian welfare with each successive welfare weights among the previous set of maximizers. The method of proof uses building blocks from convex analysis and amounts to a characterizations of "maximal" elements in a closed convex set.

This is joint work with: Yeon-Koo Che, Columbia (Economics), Jinwoo Kim, Seoul National University (Economics), Fuhito Kojima, University of Tokyo. (Economics)

Chris T. Ryan

Teacher
Sauder School of Business, University of British Columbia

Bio

Chris T. Ryan teaches at the University of British Columbia in the Sauder School of Business. His research interests include optimization (broadly defined), theoretical economics, operations management, organizational learning, and business history.