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Education

Ph.D. 2013 Rice University, Economics (expected)
M.A.   2012 Rice University, Economics
B.A.   2007 Fudan University, Economics

Fields of Interest

Microeconomic theory, Decision theory, Game theory and Mechanism design

Publications

"Egalitarian division under Leontief preferences" (with Jin Li), *Economic Theory*, forthcoming.

Working Papers

"Three representations of preferences with decreasing absolute uncertainty aversion" (*Job Market Paper*)

"Aspiration and confidence under uncertainty"

Working in progress

"Fair division with probabilistic demand"

Seminar, Lecture and Conference Presentations

2012

The Econometric Society's North American Summer Meetings, Evanston, Illinois
Foundations and Applications of Utility, Risk and Decision Theory International Conference, Atlanta, Georgia
The Texas Economic Theory Camp, Dallas, Texas
Microeconomics Theory Workshops, Rice University
Centennial Research Fair and Design Exposition, Rice University

2011

Microeconomics Theory Workshops, Rice University

ECORE Summer School on "Market Failure and Market Design", Université catholique de Louvain, Louvain-la-Neuve, Belgium

Journal Referees

Mathematical Social Sciences

Awards

Scholarship, Rice University, 2007-2011

Travel Grant, ECORE Summer School on "Market Failure and Market Design", Université catholique de Louvain, Louvain-la-Neuve, Belgium, 2011

Teaching Experience

Teaching Assistant, Rice University

Graduate level

Macroeconomics I (Fall 2008)
Microeconomic Theory II (Spring 2012)
Microeconomic Theory III (Fall 2009; Fall 2011)

Undergraduate level

Microeconomics (Fall 2007; Spring 2008)
Advanced Game Theory (Spring 2009)
Mathematical Structure of Economic Theory (Fall 2010)
Corporate Finance (Spring 2010)
Game Theory and Economic Behavior (Spring 2011; Spring 2012)

Tutor, Rice University

Graduate level

Microeconomics II (Summer 2012)
Microeconomics Qualifying Exam (Summer 2012)

Undergraduate level

Mathematical Structure of Economic Theory (Fall 2011)

References

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Three representations of preferences with decreasing absolute uncertainty aversion

This paper axiomatizes a class of preferences displaying decreasing absolute uncertainty aversion, which allows a decision maker to be more willing to take uncertainty-bearing behavior when he becomes wealthier. In our first main result, we obtain three equivalent representations. The first is a variation on the constraint criterion of Hansen and Sargent (2001). The other two generalize Gilboa and Schmeidler (1989)'s maxmin criterion and Maccheroni, Marinacci and Rustichini (2006)'s variational representation.

This class, when restricted to preferences exhibiting constant absolute uncertainty aversion, is exactly Maccheroni, Marinacci and Rustichini (2006)'s variational preferences. In our second main result, we establish relationships among the representations for several important classes within variational preferences.

Aspiration and confidence under uncertainty

This paper develops a model of uncertainty in which a decision maker evaluates an act based on his aspiration and his confidence in this aspiration. Each act corresponds to a trade-off line between the two criteria: The more he aspires, the less his confidence in achieving the aspiration level. The decision maker ranks an act by the optimal combination of aspiration and confidence on its trade-off line according to an aggregating preference of his over the two-criterion plane. To reveal the decision maker's perception about uncertainty, this paper introduces confidence orders in addition to preference orders; the confidence orders compare the decision maker's confidence in all aspiration levels of all acts. Axioms are imposed on both confidence and preference orders, which yields a capacity over all priors to represent the confidence order, and the above decision rule to represent the preference order. The aggregating preference over the aspiration and confidence criteria plane is endogenously determined.

Egalitarian division under Leontief preferences

(with Jin Li)

It was recently discovered that on the domain of Leontief preferences, Hurwicz (1972)'s classic impossibility result does not hold; that is, we can find efficient, strategy-proof and individually rational rules to allocate resources. In this paper, we consider the problem of fairly dividing l divisible goods among n agents with the generalized Leontief preferences. We propose and characterize the class of generalized egalitarian rules which satisfy efficiency, group strategy-proofness, anonymity, resource monotonicity, population monotonicity, envy-freeness and consistency. On the Leontief domain, our rules generalize the egalitarian-equivalent rules with reference bundles. We also extend our rules to agent-specific and endowment-specific egalitarian rules. The former is a larger class of rules satisfying all the previous properties except anonymity and envy-freeness. The latter is a class of efficient, group strategy-proof, anonymous and individually rational rules when the resources are assumed to be privately owned.

Fair division with probabilistic demand

This paper considers the problem of dividing a limited resource among agents with probabilistic demands. A key feature of such problems is the possibility that resources are wasted when the realized demand is less than the allocated amount. Two different families of rules are characterized which respect both fairness and non-wastefulness.

In the first family, each rule regards a random demand as a corresponding deterministic demand according to a parental preference over all the demands. These rules extend all of the established rules for deterministic demands to situations where agents have probabilistic demands. The second family of rules explicitly takes into account the agents' expected waste of the resource in an allocation. Each division rule in this family is associated with a function that specifies how the resource allocated to each agent grows with the increase of the total resource. Under reasonable axioms, this function favors the agent whose expected waste increases more slowly in the resource that he receives.