ATHENS *Pr*OBABILITY COLLOQUIUM

Saturday May 31, 2014
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"**Equilibrium in risk sharing games**"

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Abstract: We study equilibrium sharing of investment risk among agents whose random endowments constitute private information. Given the sharing rules that optimally allocate the submitted endowments, we propose a Nash game where agents' strategic choices consist of the endowments to be submitted for sharing. It is proved that the best response problem admits a unique solution (which we call "best endowment response") and differs from the agent's true risk exposure. Then, we proceed in showing that the Nash equilibrium risk sharing admits a finite dimensional characterization, and that it exists and is unique in the case of two agents. Analysis shows that the game benefits the agents close to risk neutrality, since their expected utilities are higher at the Nash risk sharing equilibrium than the optimal risk-sharing one.
(Joint work with Michail Anthropelos.)

APrOC 2014