Abstract for Andreea Minca

Title: Systemic Risk with Central Counterparty Clearing (joint with H. Amini and D. Filipovic)

Abstract: This paper studies financial networks in a stochastic framework. We measure systemic risk in terms of a risk adjusted valuation principle. The framework allows us to examine the effects on systemic risk and price contagion of multilateral clearing via a central clearing counterparty (CCP). We prove existence and uniqueness of an interbank payment equilibrium in conjunction with the price impact on external assets. We find that a CCP not always reduces systemic risk and provide sufficient conditions for the latter to hold. We derive the capitalization of a CCP based on game theoretic arguments. A real world calibrated numerical study illustrates our findings.