SCUOLA
NORMALE
SUPERIORE

NO FREE LUNCH SEMINAR

seminari di finanza quantitativa

giovedì 9 gennaio 2014

ore 13.00

Scuola Normale Superiore
Pisa
(Aula Bianchi)

Youngna CHOI

Montclair State University

Terrà un seminario dal titolo:

"Financial Instability Contagion: a Dynamical Systems Approach"

Abstract

We build a multi-agent dynamical system for the global economy to investigate and analyze financial crises. The agents are large aggregates of a subeconomy, and the global economy is a collection of subeconomies. We use well-known theories of dynamical systems to represent a financial crisis as propagation of a negative shock on wealth due the breakage of a financial equilibrium. We first extend the framework of the market instability indicator, an early warning signal defined for a single economy as the spectral radius of the Jacobian matrix of the wealth dynamical system. Then, we formulate a quantitative definition of instability contagion in terms thereof. Finally, we analyze the mechanism of instability contagion for both single and multiple economies. Our contribution is to provide a methodology to quantify and monitor the level of instability in sectors and stages of a structured global economic model and how it may propagate between its components.

Tutti gli interessati sono invitati a partecipare.

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