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**Alex Bernstein, Tathagata Banerjee and Zachary Feinstein\***

(zfeinstein@ese.wustl.edu). *A time dynamic Eisenberg-Noe financial contagion model.*

In this talk we will consider an extension of the Eisenberg-Noe model of financial contagion to allow for time dynamics in both discrete and continuous time. Derivation and interpretation as a generalization of the Eisenberg-Noe model will be provided. Mathematical results on existence and uniqueness of firm equity and losses under discrete and continuous time models will be given as well as convergence results of the discrete-time setup to a continuous-time differential equation. (Received September 05, 2017)