## Abstract Submitted for the MAR15 Meeting of The American Physical Society

Ergodicity in a model for earthquake fault systems undergoing hydraulic fracturing JAMES SILVA, WILIAM KLEIN, Boston Univ, HARVEY GOULD, Clark University, NICK LUBBERS, Boston Univ — The frequency of large seismic events in regions with a large amount of hydraulic fracturing activity has been of great interest in recent media reports of earthquake events in Oklahoma. In this talk a model for earthquake fault systems undergoing hydraulic fracturing will be introduced. The question of how seismic failure events occur and how unique the individual systems are will be addressed. This will be done by presenting work on the statistics of events and ergodicity within this model.

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