

Complexity Science Seminar

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Science B 146*

Shake and Break: Earthquake Physics and Fault Geometry

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Earthquakes display a remarkably rich set of complex behaviors. The source of this complexity remains an unsolved problem. Is it dynamical, arising from instabilities in the rupture process? Or might heterogeneities in the system, material or geometrical, be playing a central role? Or perhaps both, the interactions between the two, are crucial? This talk explores these issues concerning earthquake dynamics, fault system geometries, and interactions between the two. Beginning from the simplest models, we examine emergent complex behaviors, and compare them with observations. Some topics covered include scaling laws in models and data, applications relevant to seismic hazard, new ways of quantifying fault system geometry, and the interaction of dynamics with geometry.



Everyone is welcome!

