John Elliott TO Brownbag Seminar Tuesday, February 21, 2012

Recent continental earthquakes constrained by InSAR: determining source complexity

I will present fault slip models for a number of recent continental Mw 6-7 earthquakes (New Zealand, Yushu & Qaidam, China) that have been constrained primarily by InSAR phase observations. Other observations such as field measurements of surface slip, SAR pixel offsets, remote imagery, DEMs and seismology were used to inform our choice of fault geometry. I will ask how well can we determine faulting at depth that is consistent with any surface observations, and what is the limit to the complexity of these models that can be found reliably?