[S-SS29_28PM2] Earthquake Source Processes and Physics of Earthquakes

Convener:*Yuko Kase(Active Fault and Earthquake Research Center, AIST, GSJ), Chair:Naofumi Aso(Graduate School of Science, The University of Tokyo), Yasuo Yabe(Research Center for Prediction of Earthquakes and Volcanic Eruptions, Graduate School of Science, Tohoku University)

Mon. Apr 28, 2014 4:15 PM - 5:30 PM  416 (4F)

The goal of this session is to integrate theoretical, experimental, and observational perspectives to define what is known about earthquake source processes. We solicit submissions that address such issues as pre-, co-, and post-seismic processes, earthquake cycles, laboratory experiments on elementary processes, numerical models based on frictional laws, estimates of in situ stress field.

5:00 PM - 5:15 PM

[SsS29-P09_PG] Spatio-Temporal Variation of Stress Drop Observed at Carthage Cotton Valley Gas Field, Texas

3-min talk in an oral session

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Keywords: Stress Drop, Hydraulic Fracturing, Induced Seismicity, Pore Pressure

Understanding source characteristics of hydraulic fracturing induced microearthquakes is expected to provide a better understanding of the fracturing process and the influence of pre-existing structures controlling the distribution of events. Especially it is still controversial whether the events are associated with volumetric change or not. To address this question, we estimated the source parameters using the empirical Greens function analysis.