

## AOB Seminar

講演者名: Egill Hauksson 博士

所 属: California Institute of Technology  
Seismological Laboratory

開催日時: 2014 年 5 月 27 日(火) 14:00 - 15:40

場 所: 地震・噴火予知研究観測センター 別館 第一会議室

講演題目:

"Major late Quaternary fault zones, seismicity, crustal geophysics, and state of stress of the Pacific North America Plate boundary in southern California"

要旨:

We analyze the waveform relocated (1981 to 2014) catalog of more than 550,000 earthquakes recorded in southern California. This seismicity, with five mainshocks of  $M > 6.5$ , reflects regional plate-boundary tectonics and other crustal deformation processes. To analyze the seismicity in the context of crustal geophysics, we assign crustal geophysical parameters such as heat flow values, shear or dilatation strain rates,  $V_p/V_s$ , isostatic gravity, and distance to the nearest major fault to each epicenter. We use this extended catalog to investigate seismogenic thickness and fault zone width as well as earthquake scaling, including stress drops. We use a catalog of more than 170,000 focal mechanisms to determine the state of stress across the region. We compare the stress field results with GPS measure strain rate and shear wave splitting to unravel the distinct stress field signature of the weak San Andreas fault.