AOB Seminar

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所　　属: UC Berkeley

開催日時: 2018 年 9 月 18 日(火)　14:00-15:30

場　　所: 地震・噴火予知研究観測センターA 棟 2F 205（新しい建物です）

講演題目&要旨:

Detection and characterization of slow slip events with a geodetic matched filter approach

Since the discovery of slow slip events, many methods have successfully been applied to model obvious transient events in geodetic time series, such as the widely used network strain filter. Independent seismological observations of tremors or low frequency earthquakes and repeating earthquakes provide evidence of lower amplitude slow deformation but do not always coincide with clear occurrences of transient signals in geodetic time series. In this talk, I will present a geodetic matched filter technique that aim to extract the signal corresponding to slow slips with amplitudes close to that of noise in GPS time series. This method is based on cross-correlating a library of physical synthetic models of slow slip with post-processed GPS time series. I will present synthetic tests and an application on real data related to the Mexico subduction zone, as well as the detection of averaged slow slip events on the San Andreas fault. Eventually, I will show some motivations of trying such a technique along the Japanese subduction zones.