

- 16:05-16:20 On the relationship between lower magnitude thresholds and bias in ETAS parameter estimates: Annie Chu (ISM)
 - Modern earthquake catalogs are often described using spatial-temporal point process models such as the epidemic-type aftershock sequence (ETAS) models of Ogata (1998). Earthquake catalogs often have issues of incompleteness and other inaccuracies for earthquakes of magnitude below a certain threshold, and such earthquakes are typically removed prior to fitting a point process model. This paper investigates the bias in the parameters in two versions of ETAS models introduced by the removal of the smallest events. It is shown that, in the case of most of the ETAS parameters, the bias increases approximately exponentially as a function of the lower magnitude cutoff.