Bayesian approach for statistical modeling and forecasting of aftershock activities

*Takahiro Omi[1]

1. Institue of Industrial Science, the University of Tokyo

A large earthquake triggers a considerable number of aftershocks, which potentially cause additional damage in the affected area. It is therefore important to forecast aftershock activities as early as possible after a main shock. A basic method for forecasting aftershocks was proposed in 1989. However, for practical application of aftershock forecasting, we have to additionally consider (i) the missing of early aftershocks (ii) the forecast uncertainty. We consider such features by taking Bayesian statistical approach. In this talk, we briefly explain our forecasting method and demonstrate its utility.

Keywords: aftershock activity, probabilistic forecasting, bayesian statistics

