

## **[Seismology Group] Special seminar**

Lecturer: Dr. Margarita Segou, British Geological Survey

Date/Time : May 31 (Tuesday), 13:00 ~ 14:00

Place : Faculty of Science Building No. 1, Room 462 (4th floor)  
(<http://www.sci.kyoto-u.ac.jp/en/map.html>)

### **Title :**

Earthquake Forecasting in Asia

### **Abstract :**

The scientific question How earthquakes are triggered?, begun with Dutton in the late 19th century, continued by Charles Richter and captured our scientific imagination through the research of Harris and Simpson, coining the term “stress shadow” in the late 80s. From the early 1990s almost every major earthquake has been followed by a number of high-profile publications focusing on the spatio-temporal evolution of earthquake sequences and how the specific mainshock promoted the occurrence of future events. In recent years intense debates have engaged scientists supporting, or not, dynamic, static or remote distance triggering. Nowadays, physics-based triggering models, including rate-and-state effects, have been successful in reconstructing the evolution of aftershock sequences providing an alternative to statistical/empirical clustering models, known as ETAS. However, both models present shortcomings in capturing the breadth and wealth of triggered seismicity in different distances and time periods. In this seminar I will focus on recent advances in understanding earthquake triggering and estimating real-time probabilities, using examples from prominent sequences in Asia, such as the Nepal 2015 M=7.8, and a 4 earthquake sequences in Chuetsu area in Japan.