Date：May 29 (Mon.) 10:30-12:00

Venue：Seminar Room C-200, Research Center for Earthquake Prediction, Uji Campus, Kyoto University

Speaker：Prof. Tim Wright（University of Leeds, GB）

Title：Some surprising new results from tectonic geodesy in the continents

Abstract：

The concept of the earthquake deformation cycle, in which the slow accumulation of elastic strain around faults is periodically and catastrophically released in earthquakes, is more than 100 years old. Yet only in the last few years have we been able to make accurate and spatially-dense observations of coseismic and interseismic deformation as well as of the transient postseismic deformation that follows many earthquakes. It perhaps should not be surprising therefore to be continually surprised by new observations. In this presentation, I will highlight some of the key surprises that have emerged over the last few years, which change the way we think about earthquakes and the way that continents deform. I will show observations of coseismic rupture complexity from New Zealand, of jumping earthquakes from Pakistan, of structural control on earthquake rupture in Nepal and Tibet; I will show that although the details of postseismic deformation for any individual earthquake are complex, the overall temporal evolution of postseismic strain is remarkably simple; I will show that, in contrast to many models of the earthquake deformation cycle, observed interseismic strain rates remain constant for most of the interseismic period. Collectively, these results are challenging our preconception about how the earth deforms and have major implications for earthquake hazard.