**Geosystems Seminar**
**Department of Civil and Environmental Engineering, Tufts University**

**Date & time:** 3pm, 16 March 2017  
**Location:** 216 Anderson Hall (Fishbowl)

**Speaker:** Loïc Viens  
**Affiliation:** Postdoctoral Fellow, Department of Earth and Planetary Sciences, Harvard University

**Title:** Monitoring soil nonlinear effects from a megathrust earthquake using the ambient seismic field

**Abstract:** Strong ground motion from earthquakes can induce a non-linear response of the soils. We focus on the response of the Earth's near-surface in the Tokyo Metropolitan area after the 2011 Mw 9.0 Tohoku-Oki earthquake. We apply the single-station cross-correlation method to the continuous records of 249 seismic stations to monitor the behavior of the soils before and after the strong ground shaking.