

**Solid Earth Physics Seminar, Harvard University**

**Tuesday, 24 March 2015, 1:15 pm  
Faculty Lounge, 4th Floor, Hoffman Lab, 20 Oxford Street**

***Long-term observation of submarine  
landslide on the surface of the sliding mass***

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**Abstract:**

Despite the important roles of submarine landslides in the sediment transport from the continent to the ocean and the generation of tsunamis, evidence has come largely from morphological, seismic-structural and depositional data. Here we report our in-situ observation of submarine landslide in the focal area of the 2011 Tohoku-Oki earthquake (Mw9.0). Using a new triaxial accelerometer, along with other instruments, we detected more than 40 slow tilt events with rise times ranging 100-5000 s over a period of 10 months from 2013 to 2014. The events always initially dip landward against the seafloor slope, indicating that our tilt observation was made on the surface of the rotationally sliding mass of an intermittent submarine landslide, for which the estimates of the scale, geometry and slip parameters are made.