

**Harvard University Solid Earth Physics Seminar  
and SEAS Applied Mechanics Colloquium**

4:00 p.m. Wednesday 26 March 2014  
209 Pierce Hall, 29 Oxford Street

***Complex fluid and proppant placement in  
the hydraulic fracturing of oil and gas wells***

**Brice Lecampion**  
Schlumberger, Paris

***Abstract:*** The ultimate goal of a hydraulic fracturing (HF) treatment is to create a highly conductive pathway between the reservoir and the well. In order to do so, propping agents (e.g. sand) are mixed to the fracturing fluid such that after the end of pumping, as the fracture closes, it remains opened by the proppant. In this talk, we will review the basics of proppant transport in a fracture accounting for the different type of fracturing fluid used in practice. I will notably emphasize the impact of fluid rheology and proppant placement on the success of a HF treatment.