

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

4:00 p.m. Wednesday 19 February 2014  
209 Pierce Hall, 29 Oxford Street

***Science and Technology of Unconventional  
Fossil Fuel Production***

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***Abstract:*** The advent of fossil fuel production from gas shale and tight oil resources has revolutionized the energy economy of the United States. The effects have been widespread, and have included a shift from coal to natural gas in electric power generation, the return of the petrochemical industry from overseas, and a marked improvement in U.S. energy security. However, production techniques such as hydraulic fracturing (“fracking”) have raised questions about whether these new sources of energy can be exploited in a manner consistent with environmental protection. The scientific and technological foundations of unconventional fossil fuel production will be discussed, and applied to a selection of topics of public concern.