



# USGS NSF GRIP Opportunity

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<b>USGS Center:</b>	Geological Hazards Science Center
<b>Project Title:</b>	Source parameters affecting ground motions from induced earthquakes
<b>Project Hypothesis or Objectives:</b>	Understanding the stress drop of induced earthquakes is an important question that strongly affects high frequency ground motions. Many studies have indicated lower stress drops from induced earthquakes. We propose to take advantage of well located sequences of induced seismicity to determine Brune stress drops, allowing for the investigation of lateral variations and dependence on hypocentral depth.
<b>Duration:</b>	3-12 months
<b>Internship Location:</b>	Golden, CO
<b>Field(s) of Study:</b>	Geophysics, Engineering Physics, Seismology
<b>Expected Outcome:</b>	The project will answer important questions about the fundamental source physics of a set of induced earthquakes and may inform future ground motion models employed in seismic hazard analyses. The results may also provide important insight about the varying nature of stress drop with source depth.
<b>Special skills/training Required:</b>	We seek highly motivated applicants with backgrounds and interests in working with large geophysical data sets. Applicants should have a background in seismology and geophysics and some experience with programming, scripting, and seismological data analysis.
<b>Duties/Responsibilities:</b>	The prospective intern will have primary responsibility for collecting, formatting and analyzing the data. All work will be carried out in close collaboration with other project members (Morgan Moschetti, Stephen Hartzell).