PhD candidates in experimental geomechanics
Department: Civil and Environmental Engineering
Application deadline: open until filled
Positions start date: January 2020

Description:
The Geological Engineering program in the Department of Civil and Environmental Engineering at the University of Wisconsin-Madison is seeking PhD candidates to join the Geomechanics and Damage Group (GeoD).

The successful candidates will participate in several projects relating to mechanical properties characterization across length scales, rock fabric and stress induced anisotropy, rock physics prediction of physical properties, and damage evaluation; work will be directly applicable to the areas of oil and gas, geothermal, mining, underground construction, and tunneling. The successful candidates for this position will be part of an interdisciplinary team that is involved with developing physical properties prediction methodologies for the purpose of reducing risk and uncertainty in underground operations in deep environments. Opportunities will be available for the successful candidates to contribute to a number of tasks in experimental, numerical, and data science disciplines.

Applications will be accepted until the positions are filled. Interested candidates please send (1) a brief cover letter, (2) a CV, (3) contact information for 3 references, and (4) a copy of a recent publication in a single PDF to Prof. Jesse Hampton (jesse.hampton@wisc.edu).

Requirements:
- BS in engineering, physics, or a related field at the time of hire
- Experimental geomechanics/petrophysics/geophysics experience
- Excellent independent problem-solving skills
- Excellent writing skills

Desired:
- MS in engineering, physics, or a related field at the time of hire
- Demonstrated publication record in peer reviewed journals
- Experimental experience with high-pressure high-temperature laboratory equipment
- Experience in numerical simulation of rock fracturing
- Experience in data science and machine learning
- Field or industry experience in oil and gas, geothermal energy, mining, or other related laboratory settings