

**Lawrence Berkeley Laboratory
Postdoctoral Researcher (Hydrogeology) –
80269**

2 December 2014

Organization: ES-Earth Sciences

POSITION SUMMARY:

The Earth Sciences Division at Lawrence Berkeley National Laboratory (LBNL) is looking for a Postdoctoral Researcher position focuses on evaluating X-ray computed tomographic images and other measurements from core data, hydrologic, and geophysical data to aid in understanding Arctic soil property distribution as a function of tundra geomorphology and providing associated information to land surface models. Numerous data sets will be analyzed and correlated to characterize the geophysical the hydrological properties of arctic soils. Some laboratory tests may be required. Results will be presented at conferences and published in peer-reviewed journals.

SPECIFIC RESPONSIBILITIES:

- Analysis of X-ray computed tomography image data to interpret Arctic soil/sediment properties
- Interpretation of core data (imagery, cryostructures and properties) in the context of Arctic ice wedge polygon and drained thaw lake basin geomorphology
- Ability to manage, manipulate and jointly

interpret multiple data sets

- Use a medical X-ray CT scanner to CT scan incoming cores

- Perform simple laboratory tests such as bulk density and hydraulic conductivity.

- During the course of investigation, the candidate will present research at scientific conferences, as well as co-author and publish results in peer-reviewed journals.

- Additional - Assist with proposal development and student training as needed.

KEY SUCCESS FACTORS:

- Experience with image analysis is a key prerequisite for the position.

- Strong preference will be given to candidates with previous knowledge of:

- Arctic soils

- Soil characterization methods

- A recent Ph.D. in geological, hydrological, or computer sciences, with a background in image processing methods is expected in addition to a record of original and high-quality research is required.

- Ability to collaborate within a multi-disciplinary research team and good communications skills are also necessary.

- Preferred - Experience with Arctic soils and soil characterization methods.

- Preferred - Familiarity with Arctic geomorphology.

- Preferred - Familiarity with field geophysical methods (such as ground penetrating radar, electrical resistance tomography).

NOTE: Berkeley Lab understands the postdoctoral experience in a research environment is unique. We are committed to the growth and development of early career researchers in pursuit of becoming next generation scientists and engineers. Read about the excellent postdoctoral benefits at Berkeley Lab (<http://www.garnettpowers.com/postdoc/lbl/>).

This is a 1 year, term appointment with the possibility of renewal based upon satisfactory job performance, continuing availability of funds, and ongoing operational needs.

This position requires completion of a background check.

How To Apply

Apply directly online at <http://50.73.55.13/counter.php?id=24321> and follow the on-line instructions to complete the application process.

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