LBNL Land-Atm Interactions Postdoctoral Fellow - 80151

Organization: ES-Earth Sciences

The Climate and Carbon Sciences Program at Lawrence Berkeley National Laboratory (Berkeley Lab) seeks a creative postdoctoral scientist to investigate land-atmosphere interactions over crop and semi-arid ecosystems of the U.S., utilizing both observations (e.g., eddy covariance data) and simulations (e.g., developing, testing, and conducting experiments with CLM, off-line and in coupled Earth System Model experiments).

Potential areas of study include (1) the role of land-atmosphere interactions in drought onset or diagnosing potential changes in drought extremes due to future climate change or land cover change; (2) soil and vegetation controls on surface energy partitioning; (3) water stress and drought-carbon interactions; and (4) crop development and land-atmosphere coupling. We are also interested in improving simulations of evapotranspiration, soil moisture, and trace gas flux in regions of fine-scale spatial heterogeneity.

Special resources for this project include the DOE Atmospheric Radiation Measurement program (ARM) facility in the Southern Great Plains, which has a rich and long record of radiation, atmosphere, and carbon cycle observations, including carbon fluxes and atmospheric profiles. Our group has a strong track record in model development and is co-developing the next generation of the Community Land Model (CLM).

The project will involve a wide range of skills, including analysis of eddy flux data, application of biogeophysics and surface layer theory to explain observations of surface water and energy fluxes, and evaluation and development of land surface models. We seek talented applicants with some combination of skills in (1) synthesis of models, observations, and theory to understand surface processes and model representations; (2) assessing data quality and representativeness; (3) use and development of terrestrial ecosystem models; (4) biometeorology; and (5) uncertainty, sensitivity, inverse modeling, and data assimilation (including remote sensing) methods. The position offers an excellent environment for a self-motivated yet team-oriented scientist, and will require excellent oral and written communication skills.

The successful candidate will join a large, dynamic, and interdisciplinary department that is making climate and carbon cycle observations and developing and applying ecosystem, atmospheric process, and climate models. Project Investigators are Lara Kueppers, Bill Riley, and Margaret Torn. Berkeley Lab is a renowned center of scientific expertise in many facets of climate-related fundamental and applied science. The position starts Fall 2014 – Winter 2015.

How To Apply

Apply directly online at http://50.73.55.13/counter.php?id=18385 and follow the on-line instructions to complete the application process.

Applicants are asked to upload a CV, one-page statement of research interests, up to three publications as PDFs, and contact information for three references to the LBNL application portal under position number 80151.

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