Detailed Description:
A 2-year postdoctoral researcher position at Los Alamos National Laboratory (LANL), Earth and Environmental Science Division, with possibility of extension for a 3rd year depending on available funding and performance. Postdoc to work on a project focused on the role of Arctic deltas in controlling the rate, timing and magnitude of terrestrial fluxes to the Arctic Ocean. Permafrost thaw, changes in terrestrial hydrology, and sea level rise are all climatically driven changes that will likely affect the role Arctic deltas play in the coming decades. Project will require use of high performance computing-based hydrothermal codes to model the rate and timing of permafrost loss and lake development in Arctic deltas. Hydrological modeling will focus the role of deltaic channel network structure and the impact of sea level rise on the timing and spatial distribution of riverine fluxes to the coastal ocean.

This project is an initial effort to incorporate deltaic and coastal dynamics into global and regional climate models. The successful candidate would work closely with ocean modelers to link riverine and ocean biogeochemistry. Project has the potential to expand the research focus to explore innovative modeling approaches to dynamically couple land and ocean models. These opportunities include the use of unstructured grids such as the Model for Prediction Across Scales (MPAS), and the coupling of high-performance computing based codes to examine physical and biogeochemical interactions across terrestrial-aquatic interfaces.

Minimum Job Requirements:
Project requires a candidate with strong computational skills. Hydrological and morphodynamic modeling experience, such as Delft3d, needed. Programing skills in C++, python, and/or Matlab and IDL. Requirements also include demonstrated ability to work in a team setting.

Desired Skills: The successful candidate will have demonstrated the following: scientific excellence as evidenced by submission and publication of authored publications in refereed journals; prior research experiences in deltaic and coastal systems. Candidates with remote sensing analysis and GIS experience strongly encouraged.

Education: A Ph.D. in geomorphology, hydrology, physical oceanography, computational physics, computational geosciences or closely related skills.

Notes to Applicant: In addition to applying on-line (http://www.lanl.gov/careers/career-options/jobs/index.php, Vacancy Name: IRC38214) please send curriculum vitae, digitized copies of transcripts, names of three references, and a cover letter detailing qualifications and research interests to Joel Rowland at jrowland@lanl.gov. Please include “Arctic Deltas Postdoc” in the email subject line. Applications will be reviewed as received with the intent of filling the position before May 15, 2015. Start date can be no later than September 1, 2015.

Job location:

Located in northern New Mexico, Los Alamos National Laboratory (LANL) is a multidisciplinary research institution engaged in strategic science on behalf of national security. LANL enhances national security by ensuring the safety and reliability of the U.S. nuclear stockpile, developing technologies to reduce threats from weapons of mass destruction, and solving problems related to energy, environment, infrastructure, health, and global security concerns.

Additional Details:
Pre-Employment Drug Test: The Laboratory requires successful applicants to complete a pre-employment drug test and maintains a substance abuse policy that includes random drug testing.

Candidates may be considered for a Director's Fellowship and outstanding candidates may be considered for the prestigious Marie Curie, Richard P. Feynman, J. Robert Oppenheimer, or Frederick Reines Fellowships.

For general information to the Postdoc Program go to http://www.lanl.gov/careers/career-options/postdoctoral-research/index.php.

Equal Opportunity: Los Alamos National Laboratory is an equal opportunity employer and supports a diverse and inclusive workforce. We welcome and encourage applications from the broadest possible range of qualified candidates. The Laboratory is also committed to making our workplace accessible to individuals with disabilities and will provide reasonable accommodations, upon request, for individuals to participate in the application and hiring process. To request such an accommodation, please send an email to applyhelp@lanl.gov or call 1-505-665-5627.