

## **OpenTopography Portal**

www.opentopography.org



Teaching Earth Science With High-Resolution Topography August 5-7, 2009 San Diego Supercomputer Center

Are you an earth science instructor interested in using real world scientific data to better communicate concepts to your students? This workshop is designed to introduce educators to the use of cutting-edge earth science data, web-based data access and processing tools, and data visualization to enhance their teaching of fundamental earth science concepts.

The GEON OpenTopography Portal (http://www.opentopography.org) provides access to high-resolution topographic data from LiDAR (Light Detection and Ranging) that cover a variety of geologic features and landscapes. The Portal provides access to a suite of LiDAR data products and visualizations typically reserved for high-level research and presents an excellent opportunity to bring these exciting data into the classroom. These real world, cutting-edge, digital topographic data could be used in the classroom to allow students to explore geologic processes, landforms, and natural hazards. As a Teragrid Science Gateway, the OpenTopography Portal harnesses sophisticated cyberinfrastructure to manage and provide access to these exciting and challenging data.



Earth science educators at the community college and undergraduate level are invited to participate in a workshop to be held at the San Diego Supercomputer Center, August 5-7, 2009. This will be a small, focused, hands-on workshop where participants will have one-on-one access to expert geoscientists as well as experts in learning technology. During the course of the 3-day workshop, participants will be introduced to LiDAR topography and the OpenTopography Portal. They will then develop and demonstrate lesson plans and activities around OpenTopography and high-resolution LiDAR topography. Educators will be encouraged to brainstorm and develop ways that the Portal and data could be easily integrated into their standard curriculum using simple and freely available software such as Google Earth. Following the workshop, participants will be asked to use OpenTopography and the data it hosts in courses they teach at their home institutions and, we hope, share lessons learned as well as curriculum and teaching tools developed with the larger OpenTopography and earth science education communities.

For more information, including possible travel stipends, please contact Chris Crosby (<u>ccrosby@sdsc.edu</u>) or Margaret Smeekens (<u>margaret@sdsc.edu</u>).



This workshop will precede the GEON Cyberinfrastructure Summer Institute for Geoscientists (CSIG - more information available at: www.geongrid.org) August 10-14, 2009. Workshop attendees who are interested in a more extensive look at how information technology and internet-based resources are being used for earth science research and education are encouraged to remain in San Diego for the CSIG.