Short Course: Imaging and Analyzing Southern California’s Active Faults with High-Resolution Lidar Topography

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Supported by:
Southern California Earthquake Center, UC Davis KeckCAVES, and OpenTopography

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Overview:
Over the past 5+ years, many of southern California’s active faults have been scanned with airborne lidar through various community and PI-data collection efforts (e.g., the B4 Project, EarthScope, and the post-El Mayor–Cucapah earthquake). All of these community datasets are publicly available (via OpenTopography: http://www.opentopography.org) and powerfully depict the effect of repeated slip along these active faults as well as surface processes in a range of climatic regimes. These exciting datasets are of great interest to the SCEC research and greater academic communities, and have already yielded important new insights into earthquake processes in southern California.

We invite participants to a two-day short course on LiDAR technology, data processing and analysis techniques. We will emphasize fault trace and geomorphic mapping applications, integration with other geospatial data, and data visualization and analysis approaches. The course will be held at KeckCAVES at UC Davis and will combine lectures and hands-on use of several different software packages.

Participants are welcome to bring their own laptops, but to make for a more satisfying learning experience we will utilize computers pre-installed with a variety of software (e.g., ArcGIS, Matlab, LidarViewer, and others).

Applications may be submitted via the course website at: <URL>

There is funding available for partial travel and lodging support for the workshop; preference will be given to students.

The application deadline is Wed., September 21, 2011.