Ph.D. opportunity at USC: Geodynamics of the Aegean Sea

August 2005

The Geodynamics group at the University of Southern California, Los Angeles, led by Thorsten Becker is looking for a motivated Ph.D. student to study subduction dynamics in the Eastern Mediterranean. The position is funded through the “Multi-disciplinary Experiments for Dynamic Understanding of Subduction under the Aegean Sea” (MEDUSA) project (NSF Continental Dynamics).

The project is to develop numerical and analytical models of subduction and lithospheric dynamics to be tied in with the observational research efforts of MEDUSA. Other MEDUSA projects include structural geology and dynamics (led by Wiki Royden and Clark Burchfield, MIT) and seismologic imaging (Stephane Rondenay, MIT), with a range of other affiliated researchers in the US, Greece and Italy. Details on the full list of collaborators and research objectives can be found at http://eaps.mit.edu/medusa/.

MEDUSA offers exciting opportunities to integrate geodynamic models into fieldwork campaigns, and to develop novel quantitative tests of subduction models using the high-quality data which will be collected throughout the project. The student will be expected to apply for graduate study at USC in the Fall of 2005 and work with Becker as well as the other MEDUSA investigators starting summer/Fall of 2006. Several research visits to Cambridge MA, and to our affiliates in Italy and Greece are expected. There will an opportunity to gain hands-on experience in seismological fieldwork as well as geodynamic modeling.

USC Geodynamics places an emphasis on understanding the interactions between mantle convection and lithospheric dynamics and is embedded in an active and growing tectonophysics research program at USC with several other faculty with overlapping interests. You can read more about Thorsten Becker’s group at http://geodynamics.usc.edu/~becker/, USC’s Earth Science department and its application requirements at http://www.usc.edu/dept/earth, and USC and it’s facilities at http://www.usc.edu/.

For specific questions about this opportunity, please contact Thorsten Becker at twb at usc dot edu.