Graduate and Postdoctoral Opportunities in CRITICAL ZONE SCIENCE

The University of Arizona invites applications for graduate and postdoctoral scholars to pursue research working with an interdisciplinary team of faculty, students and staff within the new NSF-funded Jemez River Basin and Santa Catalina Mountains Critical Zone Observatory (JRB-SCM CZO). This CZO is dedicated to experimental and theoretical studies of coupled Earth surface processes, particularly as they relate to climate-water interactions in the semi-arid southwestern US. Applicants should have an interest in one or more of the following research and career areas:

1. **Ecohydrology**: Hydrologic partitioning of water in vegetated hillslopes and catchments, including the roles of seasonality, snow pack versus rainfall, evaporation, transpiration, productivity, and preferential flow.
2. **Subsurface Biogeochemistry**: Coupling of geochemical and biological processes in soil formation, solute partitioning, carbon stabilization and balance, nutrient cycling, mineral weathering, and flow-path formation.
3. **Landscape Evolution**: Geomorphic mechanics and modeling of soil production, regolith evolution, hillslope and channel sediment transport, and landscape dissection.
4. **Surface Water Dynamics**: Integrated hydrologic and hydro-chemical response to coupled dynamic processes in catchments including those listed above, applications to mountain block recharge, and solute (carbon, nutrients, lithogenics) mass balance.

The JRB-SCM CZO is focused on addressing how variability in energy and mass flux influences Earth surface structure and function from the outer periphery of vegetation to the lower limits of ground water. Of specific interest is how landscape evolution and the cycling of water and carbon alter the short- and long-term development of this “Critical Zone”. Postdoctoral candidates should submit a letter of interest, CV and contact information for at least three references to either Jon Chorover (chorover@cals.arizona.edu) or Peter Troch (patroch@hwr.arizona.edu). Prospective graduate student applicants are encouraged to also contact us by email to determine which of the five CZO-participating graduate programs are most suitable to a given candidate’s interests. For further information, please visit the CZO website: [http://www.czo.arizona.edu](http://www.czo.arizona.edu). Graduate student positions will be filled by Fall 2010.