The Department of Earth and Planetary Sciences at the University of California at Davis seeks to hire a full-time employee as an Assistant Project Scientist to perform research functions in Computational Infrastructure for Geodynamics (CIG). CIG advances Earth science by developing and disseminating software for geophysics and related fields.

NATURE AND PURPOSE

The Project Scientist makes significant and creative contributions to a research or creative project in his/her academic discipline. The appointee possesses the subject matter expertise and the creative energy necessary to function at a high level of competence. The appointee will participate in activities to increase, improve, or upgrade competency. Appointees with Project (e.g., Scientist) titles may engage in University and public service. They do not have teaching responsibilities. Although the Project Scientist is expected to work independently under the general guidance of an academic member with an independent research program (i.e., Professor), he/she is not required to develop an independent research program or reputation. He/she will carry out research or creative programs with supervision by an individual in an academic title that carries with it automatic Principal Investigator status. The Project Scientist does not usually serve as a Principal Investigator but may do so by exception.

MAJOR RESPONSIBILITIES AND DESIGNATED AREAS OF EXPERTISE

I. RESEARCH IN SPECIALIZED AREAS (80% EFFORT)
   a. Research Activity (50%)
      The project scientist will focus on the development and support of open-source scientific software for modeling mantle dynamics and the circulation of carbon through coupled Earth systems. Specifically, the project scientist will develop the capabilities of the mantle convection code ASPECT as applied to scientific research in mantle convection, melt migration, and chemical geodynamics. The project scientist is expected to expand ASPECT’s functionality in order to carry out modeling of carbon pathways and other components in the deep Earth. This work will be carried out in conjunction with the Deep Carbon Observatory (DCO) community modeling and visualization forum to ensure models are consistent and compatible and development meets community needs. The project scientist will help define project objectives, and develop and execute plans to meet objectives. The project scientist may provide general project support including, but not limited to, contributions to forums, visualization, and tutorials.

      Responsibilities associated with this project include source code modification in an open-source environment, development of documentation and manuals, development of input files and data sets including cookbooks for community use.
and for training and tutorials, presenting relevant work in peer-reviewed journals and at scientific meetings, and interacting with the scientific community through e-mail, online meetings, workshops, and tutorials.

b. Publication (10%)  
   The candidate will publish research results in peer-reviewed journals or conference proceedings either independently or in collaboration with the PI or other members of the research team.

c. Proposal preparation (10%)  
   The candidate will assist in preparation of proposals for extramural funding. The candidate will prepare and assist in the preparation of reports as required by granting agencies. The candidate may interact with funding agencies and prepare modifications of budgets and other grant components as needed.

d. Collaboration (10%)  
   The candidate will aid in the development of joint research activities between the DCO, CIG, and other institutions and outside agencies such as national high-performance computing centers such as XSEDE (NSF) with a focus on the area of mantle dynamics and chemical geodynamics.

II. PROFESSIONAL COMPETENCE AND ACTIVITY (10% EFFORT)  
   The candidate will participate in professional societies and conferences appropriate to his field and will serve as a reviewer of research proposals and scientific publications as appropriate. The candidate will attend seminars and conferences to present research results and may give oral presentations to public and professional interest groups.  
   The candidate may coordinate and give presentations at seminars, staff meetings or educational functions such as CIG tutorials.

III. UNIVERSITY AND PUBLIC SERVICE (10% EFFORT)  
   The candidate will engage in public outreach activities, such as presenting scientific research results to the general public and news media. The candidate’s public service will include providing technical advice to individuals and public agencies, and to the Deep Carbon Observatory community.  
   The candidate will engage in University service activities such as guest lecturing and committee service.

HOW TO APPLY:  
Applicant should submit a cover letter, CV, and the names and contact information of 3 references via UC Davis’ online application system, RECRUIT, located at:  

UC Davis is a smoke and tobacco-free campus. Smoking, the use of smokeless tobacco products, and the use of unregulated nicotine products (e-cigarettes) will be strictly prohibited on any UC Davis owned or leased property, indoors and outdoors, including parking lots and residential space.
UC Davis is an affirmative action/equal employment opportunity employer and is dedicated to recruiting a diverse faculty community. We welcome all qualified applicants to apply including women, minorities, individuals with disabilities, and veterans.