

## **Graduate student opportunities in coastal hydro-biogeochemistry at University of California, Santa Cruz**

We are seeking 2 PhD students to join a DOE-funded multidisciplinary research team to quantify the fate and transport of groundwater-derived nitrogen to coasts, to start summer or fall 2021. The focus field site for this project is in a heavily instrumented salt marsh complex within the Elkhorn Slough National Estuarine Research Reserve in Monterey Bay, CA. Nitrogen loading from agricultural runoff has caused coastal water quality issues, and this work will focus on both the characterization and modeling of nitrogen dynamics within this marine-terrestrial interface. We are specifically looking for students to focus on two research topics: (1) quantification of nitrogen speciation and transformations in groundwater and surface waters via field and lab experimentation and (2) reactive transport modelling with PFLOTRAN.

While the selected students will be enrolled at the University of California, Santa Cruz in Margaret Zimmer's Watershed Hydrology Lab, the students will be a part of a large research team with a diverse range of research interests that includes co-PIs Drs. Anna Braswell (University of Florida), Erin Seybold (Kansas Geological Survey; University of Kansas), Corianne Tatariw (University of Alabama), Ate Visser (Lawrence Livermore National Laboratory) and Bhavna Arora (Lawrence Berkeley National Laboratory; LBNL). In particular, the modelling student will conduct a year long exchange to LBNL to learn PFLOTRAN. The Zimmer lab is motivated to maintain a productive, diverse, and inclusive lab environment and we encourage students from under-represented groups to consider this program. In addition, UC Santa Cruz has several initiatives to help foster a welcoming environment for all (e.g. FirstGen Initiative, Office of Diversity, Equity, and Inclusion).

The UC Santa Cruz Department of Earth and Planetary Sciences is regularly ranked in the top 15-20 Earth Sciences departments in the country. The campus is located in the Santa Cruz Mountains, overlooking Monterey Bay, a national marine sanctuary. For more information about program requirements, please visit the department website. The departmental application deadline is January 5, 2021.

Interested candidates are encouraged to contact Professor Zimmer at [margaret.zimmer 'at' ucsc.edu](mailto:margaret.zimmer@ucsc.edu) before the application deadline with information on research experiences and interests, motivations to pursue a graduate degree, and career aspirations. Please include a current CV and unofficial academic transcripts. More information about the Zimmer lab can be found on the Zimmer lab website.