

Post-Doctoral Position in Physical/Biogeochemical and Individual Based Modeling

Position

The College of Earth, Ocean, and Atmospheric Sciences (CEOAS) at Oregon State University is seeking applicants for a 2-year post-doctoral position. We seek a modeler colleague who will join an interdisciplinary team of researchers studying a novel approach of marine carbon dioxide removal (mCDR) via the addition of mineral-alkalized sea water (MASW) and its impact on the ecosystem as part of the “*Electrolysis-driven weathering of basic minerals for long-term ocean buffering and CO₂ Reduction*” project. The post-doctoral fellow will take on the expansion of the Oregon coastal coupled circulation/biogeochemical model to include a carbonate-system model. The postdoc will perform sensitivity simulations to explore the persistence of perturbations in naturally varying buffering conditions, identify potential ecosystem responses and impacts on CDR efficiency, and guide the design of future in-situ experiments on the Oregon Shelf. The postdoc will also use an individual based model to assess recruitment of keystone species of California mussels.

This is a full-time position within the College of Earth, Ocean and Atmospheric Sciences (CEOAS) at Oregon State University, funded by the [FY23 National Oceanographic Partnership Program \(NOPP\) Marine Carbon Dioxide Removal Program](#). The initial appointment will be for one year with the intention of renewal for a second year assuming satisfactory progress. The postdoc will work under the mentorship of Professor Yvette H. Spitz and closely with other members of this mCDR/MASW project. The successful applicant will be appointed as a post-doctoral scholar at OSU; information about minimum salary ranges (salary is negotiable), benefits and other aspects of post-doctoral positions can be found at <https://gradschool.oregonstate.edu/postdocs>. The start date is immediately but has some flexibility.

Qualifications

At the start of the postdoc, applicants must have a PhD in a relevant area, such as oceanography, biological engineering, mathematics, and some experience in circulation and/or biogeochemical numerical modeling in Fortran (e.g. ROMS, MITgcm, CROCO). The postdoc should have some experience in numerical data analysis (e.g., in MATLAB, R or Python), and grid generation. Familiarity with carbonate chemistry is also preferred. The applicants must have excellent written and verbal communication skills in English.

Application

Applications received by November 20, 2024, will be given full consideration. Applications after this date will be

considered if position is not filled. To apply, please send: (1) a cover letter describing academic experience, qualifications, and interest in the position; (2) a curriculum vitae, including current employment and contact information and (3) names, addresses, telephone numbers, and email addresses of three professional references. Depending on the number of applicants, referees may be contacted only for a short list of top candidates. Please send these documents as one pdf file. We strongly encourage applicants from under-represented groups (including people of color, women, people with disabilities, and LGBTQ+ candidates) to apply.

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Application materials and questions regarding this position should be sent to Dr. Spitz at yvette.spitz@oregonstate.edu.