



June 2022

POSTDOC POSITION IN OCEAN MODELING

Applications are invited for a postdoctoral researcher in **ocean modeling** to work with Prof. Leif Thomas in the Department of Earth System Science at Stanford University. The successful candidate will pursue research to study the seasonal cycle of submesoscale turbulence in the subtropical gyres and the interaction of wind-driven inertial motions with eddies and fronts. The main objective of the research is to improve our understanding of how submesoscale processes and wave-mean flow interactions transfer energy between mesoscale flows and small-scale turbulence and how this varies seasonally. The research is part of multi-institution collaborative projects, and will involve a combination of theory, numerical modeling, simulations to design observational field campaigns, and analysis of submesoscale-resolving observations. In addition, there will be opportunities to participate in field campaigns in the Western Subtropical Pacific, if this is of interest to the candidate.

Responsibilities: The postdoc will lead modeling efforts to study the energetics of submesoscale turbulence and wave-mean flow interactions, present findings at project meetings and at conferences, and publish results in articles. The postdoc will engage with the larger group of collaborators involved in the projects and will use the simulations to help design strategies to optimally sample submesoscales in the field. After the field campaigns, the postdoc will have the opportunity to analyze the resulting submesoscale-resolving observations and use process simulations to aid their interpretation.

Qualifications: A PhD in physical oceanography or related field, experience with numerical modeling, a strong understanding of ocean dynamics, and proficiency in a data analysis software such as Matlab or Python are required. Experience using ROMS or a related ocean modelling system (e.g. CROCO) or having a prior research focus on submesoscale dynamics and/or wave-mean flow interactions is a plus.

Evaluation of applications will begin immediately and will continue until the position is filled. The start date is flexible (ideally between Summer and Fall 2022), but completion of the PhD is required. As per university policy, candidates who have held postdoctoral appointments for more than four years are not eligible. The initial appointment is for one year and renewable for an additional year, subject to satisfactory performance and funding availability. Salary is commensurate with experience and a full benefits package is available (<https://postdocbenefits.stanford.edu/benefit-options>). Stanford postdoctoral scholars are expected to be on campus regularly, therefore remote appointments will not be considered. Inquiries and applications should be sent by email to leift@stanford.edu. Applications should include a CV (with a list of publications), brief statement of research interests and experience, and the names and contact information of three references.

Stanford is an equal opportunity employer and all qualified applicants will receive consideration without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, veteran status, or any other characteristic protected by law.