



**University
of Victoria**

Earth & Ocean
Sciences

Postdoctoral Fellowship: Ocean sub-mesoscales using in-situ data, satellites, and simulations

Applications are invited for a two-year postdoctoral fellowship (PDF) to study ocean mesoscale and sub-mesoscale dynamics using satellite altimetry, in-situ observations, and high-resolution ocean simulations.

Funded by the Canadian Space Agency and working with university and Fisheries and Oceans Canada Scientists, the PDF will be responsible for a research program that moves forward our ability to measure and predict the Northeast Pacific Ocean, offshore of British Columbia, Canada. This is a “low kinetic energy” part of the ocean yet has variance across a wide range of scales due to buoyancy forcing both at the coast and in the Gulf of Alaska, the strong California Undercurrent system, and the presence of topographically generated mesoscale eddies. These stir heat, nutrients, and biology from the coastal domain to the open ocean.

Our team has tools and methods in place that the PDF can use to better understand and predict this stirring. The SWOT altimeter is now operational and providing high resolution snapshots of ocean sea surface height. We have ongoing glider lines along the west coast (<https://cproof.uvic.ca>) providing a large in-situ data set to understand lateral variability of water masses, and we have fine-scale shipboard observations of both water properties and ocean currents. Finally, we have operational and research simulations set up at 36th of a degree resolution over much of the domain that we seek to improve by making rigorous model-data comparisons.

We seek an ambitious and self-directed PDF to work on these problems, with a high degree of flexibility in what they focus on. The PDF will ultimately be responsible for

- Analyzing in-situ and simulation data and relating to satellite altimetry and other remote sensing (sea surface temperature, optics),
- Presenting at local and international conferences,
- Publishing papers in respected peer-reviewed journals.

The ideal candidate will have:

- a PhD in physical oceanography (or expect to complete before the appointment starts)
- experience working with observational datasets, as evidenced by the candidate’s publication record,
- a willingness to work collaboratively with a group of scientists with diverse expertise and experiences in oceanography,
- a capacity to lead projects with collaborators, excellent communication skills, and demonstrated ability to finish projects on time.

The project is led by Jody Klymak (University of Victoria), Guoqi Han, and Tetjana Ross (Fisheries and Oceans Canada, and UVic). We work with a larger team as part of Canadian-

Pacific Robotic Ocean Observing Facility (C-PROOF), and the PDF would interact with a large group of like-minded scientists.

Compensation is one year CAD \$60,000/y, plus mandatory benefits, renewable for a second year. The position is expected to be primarily in-person, and the PDF would sit at the University of Victoria and/or the Institute of Ocean Science (Sidney, BC; about a 35-minute drive from UVic).

UVic stands as a premier research university nestled in Victoria, BC, situated on the southern tip of Vancouver Island. Renowned for its academic prowess, UVic houses Ocean Networks Canada and the Pacific Climate Impact Consortium, and has robust partnerships with the Institute of Ocean Sciences and the Canadian Centre for Climate Modelling and Analysis. Victoria, embraced by the ocean and blessed with a temperate climate, serves as an ideal hub for outdoor enthusiasts. As the capital of British Columbia and a sought-after tourist destination, Victoria offers a rich tapestry of cultural activities and an eclectic culinary landscape.

UVic is committed to upholding the values of equity, diversity, and inclusion in our living, learning and work environments. In pursuit of our values, we seek members who will work respectfully and constructively with differences and across levels of power. We actively encourage applications from members of [groups experiencing barriers to equity](#). Read the full equity statement here: www.uvic.ca/equitystatement.

Interested applicants should send a CV, letter of interest, and the names of three references to Jody Klymak (jklymak@uvic.ca) before 15 May 2024 for full consideration.

