Postdoctoral Scholar in Arctic Climate Dynamics and Climate Intervention

University of California – Los Angeles

We are seeking a talented and highly motivated postdoctoral scholar or researcher to join our multidisciplinary research team investigating whether *mixed-phase cloud thinning (MCT)* could meaningfully slow the rapid warming of the Arctic and the loss of Arctic sea ice.

MCT is a proposed climate intervention that aims to cool polar regions by deliberately glaciating and thinning wintertime low-level mixed-phase clouds, thereby reducing their longwave warming effect. Despite growing interest, the climate response to such a targeted Arctic forcing remains poorly constrained. This project will quantify how reductions in wintertime Arctic cloud radiative effects will influence climate, both within and outside of the Arctic, using targeted climate-model experiments and physically based attribution methods.

This position is part of a Simons Foundation–supported effort to determine the climate response to MCT-like forcing using the Community Earth System Model (CESM).

Your Role

As a core member of our project team, you will:

- Quantify the response of Arctic and global climate to imposed perturbations in Arctic cloud radiative effects using CESM slab-ocean simulations
- Diagnose the mechanisms linking Arctic radiative forcing to changes in sea-ice area, thickness, and surface energy balance
- Contribute to the development of response "Green's functions" relating cloud-radiative perturbations to sea-ice and other outcomes
- Work closely with collaborators analyzing active-satellite observations that constrain the magnitude and spatial distribution of MCT-relevant cloud radiative effects
- Co-supervise and mentor graduate and undergraduate researchers
- Communicate results clearly in peer-reviewed publications and presentations

We Are Looking For:

Required qualifications:

- A Ph.D. in atmospheric science, meteorology, physics, or a related field (by appointment start date)
- Experience running and/or analyzing global climate model simulations (preferably CESM or E3SM)
- Demonstrated quantitative, programming, LLM, and scientific writing skills
- Strong oral communication skills and the ability to work collaboratively in a team

Highly desirable expertise includes one or more of the following:

- Experience diagnosing climate-model responses to imposed forcing or perturbation experiments
- Expertise in Arctic climate dynamics, polar amplification mechanisms, and/or feedback attribution methods
- Expertise in sea-ice processes and/or aerosol-cloud-climate interactions

We particularly encourage applications from individuals with lived or scholarly connections to Arctic regions and Peoples.

Research Environment

You will join Prof. Jasper Kok's Aerosol-Climate Interactions group at UCLA (http://jasperfkok.com), which studies aerosol–clouds-radiation interactions and Arctic climate intervention strategies. You will work closely with collaborators at UCLA (Prof. Yue Dong), the Scripps Institution of Oceanography (Profs. Ian Eisenman and Amato Evan), and the University of Maryland (Dr. Lauren Zamora).

The position complements ongoing work within the team to constrain the plausible magnitude of MCT radiative forcing using satellite observations and modelling. The successful candidate will lead efforts to translate these forcing estimates into physically interpretable Arctic and global climate responses.

We are committed to fostering a supportive and inclusive research environment and welcome applicants from diverse backgrounds and perspectives. We particularly encourage applications from individuals with lived or scholarly connections to Arctic regions and Peoples.

Position details:

- Location: UCLA
- Salary: Competitive and experience-based, in the range of $67k to $76k per year
- Benefits: Medical, dental and vision coverage.
- Eligibility: U.S. citizenship or residency not required
- Appointment: two-year initial appointment, renewable based on performance and funding availability.
- Start date: preferably summer 2026.

Application Process:

Please submit the following documents in a single PDF to Prof. Jasper Kok (jfkok@ucla.edu), using the email subject line "postdoc application".

1. Cover letter describing how your research interests and relevant experience align with the position requirements and why you are interested in the position
2. Curriculum vitae
3. Names and contact information for at least three references. References will be contacted only for shortlisted candidates.
4. Graduate transcripts (if within two years from PhD completion)
5. A brief (≤ 1 page) summary of recent and ongoing research

Applications received before May 15th, 2026 will receive full consideration, but applications will be considered until the position is filled. Only shortlisted candidates will be contacted.