



UNIVERSITY
of HAWAII
MĀNOA

Postdoctoral Position in Small-Scale Aerosol-Cloud Interactions at the University of Hawaii

Description:

Prof. Hongwei Sun (<https://hongwei8sun.github.io/>) at the University of Hawaii at Manoa invites 1-2 applications for a postdoctoral scholar position to conduct innovative research on Small-Scale Aerosol-Cloud Interactions within Marine Boundary Layer.

The successful candidate will contribute to projects that use high-resolution models (e.g., SAM, WRF-Chem) and observational data to achieve a process-level understanding of aerosol-cloud interactions (ACIs) within the marine boundary layer. Key research questions include how the background environment (e.g., global warming factors [Sun et al., 2026]) and aerosol type (e.g., sulfate aerosols from Big Island volcanic eruptions) influence ACIs. Improved process-level understanding of ACIs could help optimize their parameterizations in global climate models (GCMs). The candidate may also contribute to exploring innovative injection strategies for marine cloud brightening (MCB), considering cloud microphysics and cloud radiative efficacy. The candidate will have the opportunity to collaborate with multiple research teams at the University of Washington, Washington University in St. Louis, and the University of Chicago.

Qualifications:

- Ph.D. in atmospheric science or related fields (e.g., math, physics, or computer science).
- Experience in high-resolution numerical models (SAM, WRF/WRF-Chem, etc.) is preferred.
- Excellent communication and scientific writing skills.

Applications:

To apply, please email Dr. Hongwei Sun (hongwei8@hawaii.edu) with the following:

- Curriculum vitae.
- Cover letter (1 page) describing research interests, plans, and qualifications.
- The names and contact information of three references.

Please use the subject line "Postdoc Application in Aerosol-Cloud Interactions". Applications will be reviewed starting on April 1, 2025, on a rolling basis.

The initial position is for one year, with the possibility of renewal for an additional 1-2 years, contingent on satisfactory progress and funding availability. The selected candidate is expected to start the position between April to July 15, 2026. The starting salary will be \$75K annually with benefits.

For more information about the Department of Atmospheric Sciences and the research carried out at the School of Ocean and Earth Science and Technology, see our sites on the web:

<http://www.soest.hawaii.edu/atmo/> and <http://www.soest.hawaii.edu/>.