

KAYLIE COHANIM

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Los Angeles, CA, USA



EDUCATION

University of California, Los Angeles

B.S. Mathematics \ Atmospheric & Oceanic Sciences

Sept 2017 – Dec 2019

Los Angeles, USA

Princeton University

M.S. Atmospheric & Oceanic Sciences

Sept 2020 – Jan 2023

Los Angeles, USA

University of California, Los Angeles

PhD Atmospheric & Oceanic Sciences

Jan 2023 – currently

Los Angeles, USA

RESEARCH EXPERIENCE

UCLA Ocean Dynamics Research Group

NSF-GRFP Fellow

Jan 2023 – present

UCLA

My research uses high-resolution and Large Eddy Simulations to examine novel submesoscale dynamics beneath ice-shelf cavities and its influence on heat transport and melt rates in Antarctica.

Climate Change: From Puzzles to Policies

Teaching Assistant

Winter

UCLA

Submesoscales Under Near-Resonant Inertial Shear Experiment (SUNRISE) Field Campaign

Graduate Student

Jun 2022

Gulf of Mexico

Observational experience collecting data from the Gulf of Mexico. Observational data collected serves to support research exploring the interaction between wind-driven near-inertial oscillations and internal waves with submesoscale fronts, eddies and instabilities.

UCLA Ocean Dynamics Research Group

Research Assistant I

Apr 2018 – Aug 2020

Los Angeles, USA

*This research explores oceanic mixed-layer convection and the genesis of eddies beneath cracks in sea-ice, in an attempt to better understand and parameterize the eddy fields in polar regions. **Published.***

UCLA Earth, Wind and Particle Research Group

Student Researcher, UCLA CARE SEM Fellow

Apr 2018 – Feb 2019

Los Angeles, USA

*Determining the effects of interparticle forces on the properties of wind-blown sand on Titan, Saturn's moon. **Published.***

RESEARCH INTERESTS

Submesoscale processes, ice-ocean interactions, eddy mechanics and tracer transport, mixing and convection, modeling and theory, ice shelf cavity circulation, ice melt rate, sea-level rise.

PRESENTATIONS & TALKS

- Atmospheric and Oceanic Fluid Dynamics Conference 2024 (talk)
- Hebrew University invited seminar speaker 2024
- Ocean Science Meeting 2024 (talk)
- West Antarctic Ice Sheet Workshop 2024 (poster)
- California Geophysical Fluid Dynamics Conference 2023 (talk)
- Gordon Research Conference - Ocean Mixing 2022 (attended)
- California Geophysical Fluid Dynamics Conference 2020 (talk)
- American Geophysical Union (AGU) - Ocean Sciences Meeting 2020 (presentation)
- California Geophysical Fluid Dynamics Conference 2019 (attended)
- AGU Meeting 2018 (presentation)
- UCLA Center for Academic Research & Excellence in Science, Engineering & Mathematics (CARE SEM) Poster Presentation 2018 (presentation)

AWARDS, HONORS & FELLOWSHIPS

- NSF Graduate Research Fellowships Program (2022)
- AGU Meeting 2018 Travel Grant
- UCLA CARE SEM 2018 Summer Fellowship
- Phi Theta Kappa Honors Society (2016–present)
- Exemplary Service Award for Outstanding Performance, Israeli Intelligence Force (2014)

MENTORING

- Research mentor to undergraduates in UCLA Ocean Dynamics Research Group
- UCLA XEP Undergraduate-graduate mentoring program

PUBLICATIONS

[1] **Cohanim, Kaylie**, and Andrew L. Stewart. "Symmetric Instability in the Sub-Ice Shelf Pycnocline." *Journal of Physical Oceanography*. *Submitted*.

[2] **James Hilditch**, Kerstin Bergentz, Devon Northcott, Caique Dias Luko, Kaylie Cohanim, Dylan Schitling, Alejandra Sanchez-Rios, Kaelen Weiss, Robert Hetland, Jennifer MacKinnon, Jonathan Nash, R. Kipp Shearman, and Lief Thomas. "Observations of subduction, downward heat flux and dense filament collapse in the northern Gulf of Mexico." *Journal of Geophysical Research: Oceans*. *Submitted*.

[3] **Cohanim, Kaylie**, Ken X. Zhao, and Andrew L. Stewart. "Dynamics of Eddies Generated by Sea Ice Leads." *Journal of Physical Oceanography* 51.10 (2021): 3071-3092.

[4] Comola, Francesco, Jasper F. Kok, Juan M. Lora, **Kaylie Cohanim**, Xinting Yu, Chao He, Patricia McGuiggan, Sarah M. Hörst, and Francis Turney. "Titan's Prevailing Circulation Might Drive Highly Intermittent, Yet Significant Sediment Transport." *Geophysical Research Letters* 49.7 (2022): e2022GL097913.

VOLUNTEERING

- Member of the Initiative to Combat Antisemitism Action Group
- Israeli American Council S.H.I.E.L.D fellow (2024 - present)
- Israeli American Council Ambassador Fellow (2024 - present)
- Earth Educators' Rendezvous Workshop (2022) - experience with building rotating tanks
- Boys and Girls STEM club presenter with rotating tanks (2022)
- Princeton Plasma Physics Laboratory young Women's Conference - crafted videos and led Q & A session on GFD experiments in tanks
- Research-Mentoring Program (ReMatch) Fellow
- UCLA's Exploring Your Universe rotating tank booth
- Volunteered in Vietnam with children and veterans directly affected by Agent Orange (2015)