

Stanford



Earle Wilson

Assistant Professor of Earth System Science, by courtesy, of Geophysics, of Oceans and Center Fellow, by courtesy, at the Woods Institute for the Environment

Bio

BIO

Earle Wilson is an assistant professor in the Department of Earth System Science. He is a physical oceanographer who studies ocean dynamics at high latitudes and their far-reaching impacts on the global climate. He is particularly interested in the circulation of the Southern Ocean and its interactions with the cryosphere (i.e., sea ice and marine-terminating glaciers). Dr. Wilson and his group explore these research questions using various tools and methods, ranging from in situ ocean observations and idealized numerical models.

ACADEMIC APPOINTMENTS

- Assistant Professor, Earth System Science
- Center Fellow (By courtesy), Stanford Woods Institute for the Environment
- Assistant Professor (By courtesy), Geophysics
- Assistant Professor (By courtesy), Oceans

ADMINISTRATIVE APPOINTMENTS

- Assistant Professor, Earth System Science, (2022- present)

PROFESSIONAL EDUCATION

- PhD, University of Washington , Oceanography (2019)
- BS, Columbia University , Applied Physics (2012)

LINKS

- group website: <https://polar.stanford.edu/>

Teaching

COURSES

2024-25

- Atmosphere, Ocean, and Climate Dynamics: the Ocean Circulation: CEE 162I, CEE 262I, EARTHSYS 146B, ESS 246B (Win)
- Polar Climate Dynamics: ESS 248 (Spr)

2023-24

- Polar Climate Dynamics: ESS 248 (Spr)

2022-23

- Atmosphere, Ocean, and Climate Dynamics: the Ocean Circulation: CEE 162I, CEE 262I, EARTHSYS 146B, ESS 246B (Win)

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Zack Kaufman

Doctoral (Program)

Lexi Arlen, JeongHyun Kim, Leмона Niu

Publications

PUBLICATIONS

- **Mechanisms for Abrupt Summertime Circumpolar Surface Warming in the Southern Ocean** *JOURNAL OF CLIMATE*
Wilson, E. A., Bonan, D. B., Thompson, A. F., Armstrong, N., Riser, S. C.
2023; 36 (20): 7025-7039
- **Coastal Polynyas Enable Transitions Between High and Low West Antarctic Ice Shelf Melt Rates** *GEOPHYSICAL RESEARCH LETTERS*
Moorman, R., Thompson, A. F., Wilson, E. A.
2023; 50 (16)
- **Commercial krill fishing within a foraging supergroup of fin whales in the Southern Ocean.** *Ecology*
Ryan, C., Santangelo, M., Stephenson, B., Branch, T. A., Wilson, E. A., Savoca, M. S.
2023: e4002