UCHIDA, Takaya

Office Address
Lamont-Doherty Earth Observatory
205A Oceanography 61 Route 9W
Palisades, NY 10964-8000
takaya@ldeo.columbia.edu
https://roxyboy.github.io

Education

Doctor of Philosophy, Physical Oceanography — May 2019 (projected)
Columbia University in the City of New York, New York, NY
GPA 3.86

Bachelor of Engineering, Environmental Engineering
The University of Tokyo, Tokyo, Japan — March 2014
GPA 3.71

Publications in Preparation

- Uchida, T., R. Abernathey, G. McKinley, S. Smith, D. Balwada and M. Lévy. The impact of seasonality in eddy iron fluxes on primary production in the Southern Ocean. (*In Preparation*).

- Uchida, T., R. Abernathey, G. McKinley, S. Smith, D. Balwada and M. Lévy. A mechanistic understanding of vertical eddy iron fluxes in the Southern Ocean: temporal and spatial scale decomposition. (*In Preparation*).

- Balwada, D., W. Chen, J. C. Ohlmann, T. Uchida, R. Abernathey. Velocity Structure Functions in California's Coastal Seas from Surface Drifters. (*In Preparation*)

Published Publications

- Uchida, T., R. Abernathey and S. Smith. Seasonality of eddy kinetic energy in an eddy permitting global climate model. *Ocean Modelling*, 2017. vol. 118, pp. 41-58.

Oral Presentations

- Uchida, T., R. Abernathey, G. McKinley, S. Smith, D. Balwada and M. Lévy. Seasonality of (sub)mesoscale turbulence in the Southern Ocean and its impact on primary production. *AGU Fall Meeting*, December 2018. Washington D.C., USA.

- Uchida, T., R. Abernathey and S. Smith. Idealized study of seasonal dynamics in the Southern Ocean. *Gordon Research Conference*, June 2018. Andover, USA.

- Khatri, H., T. Uchida, and D. Balwada. Ocean surface spectral fluxes of kinetic energy, enstrophy and buoyancy variance from a earth system model. *Gordon Research Conference*, June 2018. Andover, USA.

- Uchida, T., R. Abernathey and S. Smith. Mixed-layer instability as a source of surface kinetic energy in the seasonal cycle in a global climate model. *AMS 21st Conference on Atmospheric and Oceanic Fluid Dynamics*. June 2017. Portland, USA

- Uchida, T. and R. Abernathey. Seasonality in ocean mesoscale turbulence in a high-resolution global climate model. *Ocean Sciences Meeting*. February 2016. New Orleans, USA.

Honors and Awards

- Scholarship from the Heiwa Nakajima Foundation, a private foundation in Japan, from September 2014 - August 2016.

Technical Skills

- Proficient in compiling and running numerical models in Fortran, with experience using the MITgcm.

- Proficient in big data analysis and has contributed to the development of Python open source packages such as `xgcm/xrft`, `xomega` and `oceanmodes` all available on Github.

Service Activity

- Served as an elected representative of the Natural Sciences on the bargaining committee of the Graduate Workers of Columbia, United Auto Workers Local 2110, a labor union that represents all graduate workers at Columbia University since March 2017. Lead our unit to gain union recognition from the Columbia administration in November 2018.