# UCHIDA, Takaya

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## Education

Doctor of Philosophy, Physical Oceanography — September 2019
Columbia University in the City of New York, New York, USA
GPA 3.86

Master of Arts, Physical Oceanography — May 2016
Columbia University in the City of New York, New York, USA
GPA 3.89

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

## Publications 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*)

## Publications

- Uchida, T., D. Balwada , R. Abernathey, G. McKinley, S. Smith & M. Lévy. The impact of seasonality in eddy iron fluxes on primary production in the Southern Ocean. *Nature Comm.*, **11**, 1125. (2020).

- Uchida, T., D. Balwada, R. Abernathey, G. McKinley, S. Smith & M. Lévy. The contribution of submesoscale over mesoscale eddy iron transport in the open Southern Ocean. *J. Adv. Model. Earth Syst.*, **11**, 3934-3958. (2019).

- Uchida, T., D. Balwada, R. Abernathey, P. Channing, E. Boss & S. Gille. Southern Ocean Phytoplankton Blooms Observed by Biogeochemical Floats. *JGR: Oceans*, **124** (**11**), 7328-7343. (2019).

- Uchida, T., R. Abernathey & S. Smith. Seasonality of eddy kinetic energy in an eddy permitting global climate model. *Ocean Model.*, **118**, 41-58. (2017).

## Oral and Poster Presentations

- Uchida, T., D. Balwada , R. Abernathey, G. McKinley, S. Smith & M. Lévy. A Mechanistic Understanding on Eddy Iron Transport in the Southern Ocean. *AMS 22nd Conf. on Atmos. and Oceanic Fluid Dyn*. June 2019. Portland, Maine, USA

- Uchida, T., R. Abernathey, G. McKinley, S. Smith, D. Balwada & 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 & S. Smith. Idealized study of seasonal dynamics in the Southern Ocean. *Gordon Research Conf.*, June 2018. Andover, Massachusetts, USA.

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

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

## 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`, `xomega` and `oceanmodes` all available on Github.

## Service Activity

- Reviewer for the Journal of Oceanography and Limnology, Physical Oceanography, and Advances in Modeling Earth Systems.

- 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.