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Brett McKim

Education

2019-Now PhD, Climate Physics, University of Exeter, United Kingdom.

Advisor: Geoff Vallis

2015-2019 Bachelor of Science, Physics, University of California, Santa Barbara, United

States.

Research Interests

Geophysical Fluid Dynamics: Moist Convection, Entrainment, and Direct Numer-

ical Simulations

Climate: Runaway Greenhouse Regimes, Hydrological Cycle, and Simple Spectral

Models

Experience

2018–2019 Ernest F. Hollings Scholar, NOAA Geophysical Fluid Dynamics Laboratory.

Advisors: Leo Donner & Nadir Jeevanjee

2018 **International Exchange**, *University of Edinburgh*.

Advisor: Alexander Morozov

2017 NSF Research Experience for Undergraduates, Naval Postgraduate School.

Advisors: Jeff Paduan & Mike Cook

2016 EUREKA Scholar, University of California, Santa Barbara.

Advisor: Libe Washburn

Skills

Numerics Python, MATLAB, Mathematica, Dedalus (Pseudospectral PDE Solver)

Graphics Adobe Lightroom & Photoshop

Awards and Honors

2018–2019 NOAA Ernest F. Hollings Scholar

2017–2018 UC Santa Barbara Alumni Scholarship

2017 Philip and Aida Siff Scholarship

2016 UC Santa Barbara EUREKA Scholar

Publications

1. B. McKim, N. Jeevanjee, D. Lecoanet, "Buoyancy-Driven Entrainment in Dry Thermals." *QJRMS*, *2019*.

Presentations

- 5. Poster: Atmospheric and Oceanic Fluids Conference. "Buoyancy-Driven Entrainment in Dry Thermals," Jun. 28, 2019.
- 4. Poster: University of Edinburgh, Department of Physics. "Simulating Microtubule Mixtures On a Sphere," Dec. 2018.
- 3. Talk: NOAA GFDL. "Clouds: Do they Feel Drag?" Aug. 2018.
- 2. Talk: Eastern Pacific Ocean Conference, South Lake Tahoe, CA 09/2017. "Water Trajectory Patterns in Monterey Bay," Sep. 2017.
- 1. Talk: UCSB, Kavli Institute for Theoretical Physics. "How Winds and Sea Level Differences Control Coastal Ocean Currents," Sep. 16, 2016. http://online.kitp.ucsb.edu/online/undergrad16/mckim/

Media

- 3. *How the Ocean is Just Like Your Cup of Coffee* by Brett McKim. https://medium.com/for-the-curious/coffee-and-oceans-519121b61128
- 2. *Understanding the Sea: UCSB Undergraduate Dives into Tidal Movement* by Soobin Lee. https://thebottomline.as.ucsb.edu/2017/01/understanding-the-sea-ucsb-undergraduate-dives-into-tidal-movement-research
- 1. *An Introduction to Tidal Harmonic Analysis* by Brett McKim. https://undergrad.research.ucsb.edu/author/brettmckim/