NICHOLAS JAMES LUTSKO

Postdoctoral Associate at MIT Department of Earth, Atmospheric and Planetary Sciences

Email: lutsko@princeton.edu 54-1823, Building 54
Website: https://nicklutsko.github.io 77 Massachusetts Avenue MIT
Cambridge, MA 02139.

Education

2012-2017 **Ph.D.** Princeton University.

Thesis title: Aspects of Eddy Momentum Fluxes in the General Circulation of the

Troposphere.

Adviser: Professor Isaac Held

2008-2012 Msci. Geophysics, Imperial College London

Publications

1

| Under review | Lutsko, N. J., Held, I. M., and Takahashi, K. What can the internal variability of cmip5 models tell us about their climate sensitivity? <i>Journal of Climate</i> , Submitted |
|-----------------|--|
| 2017 | Lutsko, N. J. (2017). The response of an idealized atmosphere to enso-like heating: Superrotation and the breakdown of linear theory. <i>Journal of the Atmospheric Sciences</i> , In press |
| | Popp, M. and Lutsko, N. J. (2017). Quantifying the zonal-mean structure of tropical precipitation. <i>Geophysical Research Letters</i> , In press |
| | Lutsko, N. J., Held, I. M., Zurita-Gotor, P., and O'Rourke, A. K. (2017). Lower tropospheric eddy momentum fluxes in idealized models and reanalysis data. <i>Journal of the Atmospheric Sciences</i> , In press |
| 2016 | Lutsko, N. J. and Held, I. M. (2016). The response of an idealized atmosphere to orographic forcing: Zonal vs meridional propagation. <i>Journal of the Atmospheric Sciences</i> , 73(8):3701 – 3718 |
| 2015 | Lutsko, N. J., Held, I. M., and Zurita-Gotor, P. (2015). Applying the fluctuation—dissipation theorem to a two-layer model of quasi-geostrophic turbulence. <i>Journal of the Atmospheric Sciences</i> , 72(8):3161 – 3177 |

Conference Presentations

| 2017 | AOFD (Talk) Lower Tropospheric Eddy Momentum Fluxes in Idealized Models and Reanalysis Data |
|------|--|
| 2016 | AGU (Talk) What Can the Internal Variability of Climate Models Tell Us About Their Climate Sensitivity? |
| | Model Hierarchies Workshop (Poster) The Responses of Idealized Atmospheric Models to Orographic Forcing |
| 2015 | AOFD (Talk) The Response of the Mid-Latitudes to Idealized Orography in the Presence of a Jet |
| | AOFD (Poster) Applying the Fluctuation–Dissipation Theorem to a Two-Layer Model of Quasi-Geostrophic Turbulence |

Seminars

2017 University of Chicago, Geophysical Fluid Dynamics Laboratory (thesis defense), Columbia University

Professional Activities

Reviewer Journal of the Atmospheric Sciences, Journal of Climate, GFDL Internal Reviews.

June 2017 AOFD Session Chair Theme: Theoretical Advances in AOFD.

August 2015 Organizer Princeton AOS Workshop. Theme: Using Climate Models to Study Extreme Climates.

Fall 2013 – Spring 2014 Organizer Princeton AOS Student Seminar series.

Awards, Fellowships and Summer Schools

| 2016 | Rossbypalooza |
|-----------|---|
| 2014 | Cambridge FDSE Summer School |
| 2013-2016 | NSF Graduate Research Fellowship |
| 2012 | Princeton University Centennial Fellowship |
| 2012 | Imperial College Governor's Prize |
| 2008 | R. Stoddard Longcroft Prize at Imperial College |

Teaching

Spring 2016 Assistant Instructor Princeton GEO202: Ocean, Atmosphere, and Climate
(with Professor Allison Gray)

Fall 2015 Assisted with class projects Princeton AOS576: Current Topics in Dynamic
Meteorology Large-Scale Structure/Atmosphere (with Professor Isaac Held)