

NICHOLAS JAMES LUTSKO

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77 Massachusetts Avenue MIT
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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

- 2018 | Lutsko, N. J. and Takahashi, K. (2018). What can the internal variability of cmip5 models tell us about their climate sensitivity? *Journal of Climate*, Accepted
- 2018 | Lutsko, N. J. (2018). The response of an idealized atmosphere to enso-like heating: Superrotation and the breakdown of linear theory. *Journal of the Atmospheric Sciences*, 75:3–20
- 2017 | Popp, M. and Lutsko, N. J. (2017). Quantifying the zonal-mean structure of tropical precipitation. *Geophysical Research Letters*, 44(18):9470–9478. 2017GL075235
- 2017 | 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. *Journal of the Atmospheric Sciences*, 74:3787 – 3797
- 2016 | Lutsko, N. J. and Held, I. M. (2016). The response of an idealized atmosphere to orographic forcing: Zonal vs meridional propagation. *Journal of the Atmospheric Sciences*, 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. *Journal of the Atmospheric Sciences*, 72(8):3161 – 3177

Conference Presentations

- 2017 | **AOFD (Talk)** Lower Tropospheric Eddy Momentum Fluxes in Idealized Models and Reanalysis Data

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| 2016 | <p>AGU (<i>Talk</i>) What Can the Internal Variability of Climate Models Tell Us About Their Climate Sensitivity?</p> <p>Model Hierarchies Workshop (<i>Poster</i>) The Responses of Idealized Atmospheric Models to Orographic Forcing</p> |
| 2015 | <p>AOFD (<i>Talk</i>) The Response of the Mid-Latitudes to Idealized Orography in the Presence of a Jet</p> <p>AOFD (<i>Poster</i>) Applying the Fluctuation–Dissipation Theorem to a Two-Layer Model of Quasi-Geostrophic Turbulence</p> |

Seminars

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| 2018 | Laboratoire de Meteorologie Dynamique, NYU, MIT |
| 2017 | University of Chicago, Geophysical Fluid Dynamics Laboratory (thesis defense), Columbia University |

Professional Activities

Reviewer Journal of the Atmospheric Sciences, Journal of Climate, Geophysical Review Letters, 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

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| 2016 | Rosbypalooza |
| 2014 | Cambridge FDSE Summer School |
| 2013–2016 | NSF Graduate Research Fellowship |
| 2012 | Princeton University Centennial Fellowship |
| 2012 | Imperial College Governor’s Prize |
| 2009 | EPSRC Summer Research Grant |
| 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)

Outreach

2018 **Hosted lab visit** with students in MIT Executive MBA Program.

Participant Climate Changed competition.