

# Jesse Norris, Ph.D

Atmospheric and Oceanic Sciences  
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## Academic positions

- Project scientist, University of California Los Angeles, CA, USA, Apr 2019 – present.
- Postdoctorate researcher, University of California Los Angeles, CA, USA, Nov 2016 – Jan 2019.
- Postdoctorate researcher, University of California Santa Barbara, CA, USA, Feb 2014 – Nov 2016.

## Education

- Ph.D. in Atmospheric Science, University of Manchester, UK, 2014. Thesis advisors: Geraint Vaughan and David M. Schultz.
- MSc (Merit) in Mathematics and Meteorology, University of Reading, UK, 2009. Thesis advisor: John Methven.
- MMath (Upper Second-Class Honours) in Mathematics, University of Manchester, UK, 2007.

## Fieldwork

- Diabatic Influence on the Mesoscale Structure of Extratropical Storms (DIAMET) project's field campaigns:
  - on flights as a mission scientist;
  - on the ground, providing technical support during flights;
  - participating in the planning of flights, given daily weather forecasts.

## Computational skills

- **Programming:** Python, IDL, Matlab, Fortran.
- **Linux:** including running Weather Research and Forecasting (WRF) model, analyzing climate data, and writing shell scripts.
- **Large datasets:** Processing, storing, and transferring 10s of TB of NetCDF data.
- **High computing:** Compiling model code and performing simulations on the High End Computing Terascale Resources (HECToR) UK supercomputer and the National Center for Atmospheric Research (NCAR)'s Yellowstone and Cheyenne supercomputers.

## Additional training

- Proposal Writing for Success (PROWESS) Workshop, UCSB, CA, USA. 2015.
- National Center for Atmospheric Research (NCAR) WRF Users' Workshop, Edinburgh, UK. 2010.
- National Centre for Atmospheric Science (NCAS) Atmospheric Measurements Summer School, Arran, UK. 2010.

## Professional memberships

- 2011–Present: *Royal Meteorological Society*.
- 2014–Present: *American Geophysical Union*.
- 2017–Present: *American Meteorological Society*.

## Publications

- Norris, J., G. Chen, and J. D. Neelin, 2019: Thermodynamic versus dynamic controls on extreme precipitation in a warming climate from the Community Earth System Model Large Ensemble, *J. Clim.*, **32**, 1025–1045.
- Chen, G., J. Norris, J. D. Neelin, J. Lu, L. R. Leung, and K. Sakaguchi, 2019: Thermodynamic and dynamic mechanisms for hydrological cycle intensification over the full probability distribution of precipitation events, *J. Atmos. Sci.*, **76**, 497–516.
- Norris, J., L. M. V. Carvalho, C. Jones, and F. Cannon, 2019: Deciphering the contrasting climatic trends between the central Himalaya and Karakoram with 36 years of WRF simulations, *Clim. Dyn.*, **52**, 159–180.
- Norris, J., G. Vaughan, and D. M. Schultz, 2017: Variability of precipitation along cold fronts in idealized baroclinic waves. *Mon. Wea. Rev.*, **145**, 2971–2992.
- Norris, J., L. M. V. Carvalho, C. Jones, F. Cannon, B. Bookhagen, E. Palazzi, and A. A. Tahir, 2017: The spatiotemporal variability of precipitation over the Himalaya: evaluation of one-year WRF model simulation, *Clim. Dyn.*, **49**: 2179–2204.
- Cannon, F., L. M. V. Carvalho, C. Jones, J. Norris, B. Bookhagen, and G. N. Kiladis, 2017: Effects of topographic smoothing on the simulation of winter precipitation in High Mountain Asia. *J. Geophys. Res. Atmos.*, **122**: 1456–1474.
- Carvalho, L. M. V., C. Jones, F. Cannon, and J. Norris, 2016: Intraseasonal-to-interannual variability of the Indian monsoon identified with the Large-scale Index for the Indian Monsoon System (LIMS). *J. Clim.*, **29**, 2941–2962.
- Cannon, F., L. M. V. Carvalho, C. Jones, A. Hoell, J. Norris, G. N. Kiladis, and A. A. Tahir, 2016: The influence of tropical forcing on extreme winter precipitation in the western Himalaya. *Clim. Dyn.*, **48**: 1213–1232.
- Cannon, F., L. M. V. Carvalho, C. Jones, and J. Norris, 2016: Winter westerly disturbance dynamics and precipitation in the western Himalaya and Karakoram: a wave-tracking approach. *Theor. Appl. Climatol.*, **125**: 27–44.

- Norris, J., L. M. V. Carvalho, C. Jones, and F. Cannon, 2015: WRF simulations of two extreme snowfall events associated with contrasting extratropical cyclones over the western and central Himalaya. *J. Geophys. Res.*, **120**, 3114–3138.
- Vaughan, G. et al., 2015: Cloud banding and winds in intense European cyclones: Results from the DIAMET project. *Bull. Amer. Meteor. Soc.*, doi:10.1175/BAMS-D-13-00238.1
- Norris, J., G. Vaughan, and D. M. Schultz, 2014: Precipitation banding in idealized baroclinic waves. *Mon. Wea. Rev.*, **142**, 3081–3099.
- Norris, J., G. Vaughan, and D. M. Schultz, 2013: Snowbands over the English Channel and Irish Sea during cold-air outbreaks. *Q. J. R. Meteorol. Soc.*, **139**, 1747–1761.

## Journal reviews

- *Journal of Climate*.
- *Journal of Geophysical Research*.
- *Monthly Weather Review*.
- *Tellus*.
- *Advances in Meteorology*.
- *Climate Dynamics*.
- *Journal of Hydrometeorology*.

## Proposal reviews

- National Science Foundation.

## Oral presentations

- *American Geophysical Union* Fall Meeting, Washington D.C., USA, 2018.
- NOAA’s 43rd Climate Diagnostics & Prediction Workshop, UCSB, Santa Barbara, CA, USA, 2018
- Caltech Climate Dynamics Seminar, Pasadena, CA, USA, 2018
- International Atmospheric Rivers Conference, UCSD, San Diego, CA, USA, 2018.
- *American Physics Society* March Meeting, Los Angeles, CA, USA, 2018.
- *American Meteorological Society* Annual Meeting, Austin, TX, USA, 2018.
- Atmospheric and Oceanic Sciences Summer Seminar Series, UCLA, Los Angeles, CA, USA, 2016.
- Earth Research Institute Climate Meeting, UCSB, Santa Barbara, CA, USA, 2014, 2015, and 2016.

- *European Meteorological Society* Conference, Reading, UK, 2013.
- Centre for Atmospheric Science Seminar, Manchester, UK, 2013.
- School of Earth Atmospheric and Environmental Sciences Conference, Manchester, UK, 2011 and 2012.

## Conference posters

- *American Meteorological Society* Conference on Atmospheric and Oceanic Fluid Dynamics, Portland, OR, USA, 2017
- *American Geophysical Union* Fall Meeting, San Francisco, CA, USA, 2014, 2015, and 2016.
- WRF Model Users' Workshop, Boulder, CO, USA, 2014.
- *European Geosciences Union* General Assembly, Vienna, Austria, 2012.
- *Royal Meteorological Society* Conference, Exeter, UK, 2011.

## Awards

- The L. F. Richardson Prize of the *Royal Meteorological Society* for “Snowbands over the English Channel and Irish Sea during cold-air outbreaks”, published in the *Quarterly Journal of the Royal Meteorological Society* (see publications).