

Wandi Yu

Research Assistant Professor, Hampton University, Hampton, Virginia

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EXPERIENCE

Research Assistant Professor, Hampton University, February 2021-Current, Hampton University, Hampton, VA

Visitor, National Center for Atmospheric Research, September 2021-Current, Boulder, CO

Research Assistant, Texas A&M University, September 2014-December 2020, College Station, TX

Graduate Visitor, National Center for Atmospheric Research, April 2019-September 2019, Boulder, CO

EDUCATION AND TRAINING

Department of atmospheric Sciences, Texas A&M University, College Station, TX

Ph.D.

Dec 2020

Master of Science

Dec 2017

School of atmospheric Sciences, Nanjing University, Nanjing, China

Bachelor of Science

Jun 2014

SKILLS

- **Programming:** Python (Scikit-Learn, Pandas, Numpy, Scipy, Matplotlib, seaborn), SQL, IDL, Fortran, MATLAB, R
- **Numerical modeling:** WRF, trajectory model, CESM
- **Numerical skills:** Fourier analysis, interpolation, band pass filter, numerical differentiation and integration
- **Machine learning:** regression, SVM, KNN, decision tree, logistic regression, deep learning, K-means clustering, recommendation system

CERTIFICATES

Fellowship completion by The Data Incubator

WRF tutorial certificate by NCAR

IBM data science certificate by Coursera

Stanford machine learning certificate by Coursera

Intro to Machine Learning, Intermediate Machine Learning, Feature Engineering, and Machine Learning

Explainability by Kaggle

PUBLICATIONS

Wandi Yu, Rolando Garcia, Jia Yue, James Russell III, Martin Mlynchzak, Variability of water vapor in the middle atmosphere observed from satellites and interpreted using SD-WACCM simulations *submitted*

Wandi Yu, Andrew E. Dessler, Mark Schoeberl, Hao Ye, Tao Wang. " Factors contributing to the projected trend in stratospheric water vapor over the 21st century." *In Prep*

Jia Yue, **Wandi Yu**, Nick Pedatella, Sean Bruinsma, Ningchao Wang, Huixin Liu, Contribution of the lower atmosphere to the day-to-day variation of thermospheric density *submitted*

Ningchao Wang, **Wandi Yu**, Jia Yue, Wenbin Wang, Liying Qian, Joe McInerney, Martin G. Mlynchzak, and James M. Russell III, Thermospheric Nitric Oxide Cooling Responses to the December 14, 2020 Solar Eclipse, *In Prep*

Yu, W., Dessler, A. E., Park, M., & Jensen, E. J. (2020). Influence of convection on stratospheric water vapor in the North American monsoon region. *Atmospheric Chemistry and Physics*, 20(20), 12153-12161. <https://doi.org/10.5194/acp-20-12153-2020>.

Schoeberl, M. R., Pfister, L., Wang, T., Kummer, J., Dessler, A. E., & **Yu, W.** (2020). Erythemal radiation, column ozone, and the North American monsoon. *Journal of Geophysical Research: Atmospheres*, 125, e2019JD032283. <https://doi.org/10.1029/2019JD032283>

Wang, X., Dessler, A. E., Schoeberl, M. R., **Yu, W.**, and Wang, T.: Impact of convectively lofted ice on the seasonal cycle of water vapor in the tropical tropopause layer, *Atmos. Chem. Phys.*, 19, 14621–14636, 2019.

Ye, Hao, Andrew E. Dessler, and **Wandi Yu**. "Effects of convective ice evaporation on interannual variability of tropical tropopause layer water vapor." *Atmospheric Chemistry and Physics* 18.7 (2018): 4425-4437.

PRESENTATIONS

Variability of Water Vapor in the Middle Atmosphere Observed from Satellites and Interpreted Using SD-WACCM Simulations AMS ANNUAL MEETING, 2022, virtual

Variability of Water Vapor in the Middle Atmosphere Observed from Satellites and Interpreted Using SD-WACCM Simulations AGU FALL MEETING, 2021, virtual

A 28-year trend of water vapor in stratosphere and mesosphere from observation and model simulation, IAGA-IASPEI 2021, 2021, Virtual

A 28-year trend of water vapor in stratosphere and mesosphere from observation and model simulation, CEDAR and climate change workshop, 2021, Virtual

Influence of convection on stratospheric water vapor in the North American Monsoon region , AGU FALL MEETING, 2019, San Francisco

Influence of convection on stratospheric water vapor in the North American monsoon, NCAR ACOM UTLS group meeting, 2019, Boulder

Influence of convection to North America stratospheric water vapor, NOAA ESRL Chemistry & Climate Processes group meeting, 2019, Boulder

Model simulation of convectively lofted ice contribution to stratospheric water vapor, AMS ANNUAL MEETING, 2018, Austin

Model simulation of convectively lofted ice contribution to stratospheric water vapor, Department graduate student seminar, 2017, College Station

Model simulation of convectively lofted ice contribution to stratospheric water vapor, AGU FALL MEETING 2017, New Orleans