

Madankui Tao

Lamont-Doherty Earth Observatory (LDEO)
Department of Earth and Environmental Sciences
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Education

Columbia University, New York, NY, USA	Sep. 2019 - May 2024 (Expected)
<i>Doctor of Philosophy, Earth and Environmental Sciences</i>	

University of Wisconsin-Madison, Madison, WI, USA	Sep. 2015 - May 2019
<i>Bachelor of Science with Honors, Environmental Science</i>	
<i>Certificate, German</i>	
<i>Senior Thesis, Comparison of TROPOMI NO₂ retrievals to ground-based measurements in Los Angeles</i>	

Awards and Honors

2019	Dean's Fellowship of Columbia University
Sep. 2015 - May 2019	Dean's List of University of Wisconsin-Madison
2018	Undergraduate Air Quality Research Award
2018	Hilldale Undergraduate/Faculty Research Fellowship
2017	Pisk and Ronda Broatch Family Award for German Studies

Research Experience

Sep. 2019 - Present	Graduate Research Assistant (Advisor: Arlene Fiore), Columbia University
Aug. 2017 - May 2019	Undergraduate Research Assistant (Advisor: Tracey Holloway), University of Wisconsin-Madison
Jan. 2017 - May 2017	Undergraduate Research Assistant (Advisor: Ankur Desai), University of Wisconsin-Madison

Teaching Experience

Fall 2020	Teaching Assistant, Research Computing in Earth Sciences, Columbia University
Summer 2016	Teaching Assistant, Introductory Biology, Sichuan University

Work Experience

Sep. 2016 - May 2019	Office Assistant and Facilitator, Wisconsin Union Training Resource Center, Madison, WI, USA
Aug. 2017 - Sep. 2017	Orientation Assistant, UW-Madison International Student Services, Madison, WI, USA
Jan. 2016 - July 2017	Campus Representative, Sichuan University & Xi'an Jiaotong University Summer School, Madison, WI, USA

Publications

Published

1. Abel, A., Holloway, T., Martínez-Santos, J., Harkey, M., **Tao, M.**, Kubes, C. & Hayes, S. (2019). The air quality-related health benefits of energy efficiency in the United States. *Environmental Science & Technology*. 53. doi: 10.1021/acs.est.8b06417.

Presentations

Invited Talks

1. Investigate summertime ozone sensitivity over northeast U.S., *Solutions for Pollutions Seminar*, Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY, USA, July 2020.
2. Investigating changes in ozone formation chemistry during summertime pollution events over the Northeastern U.S., *OWLETS Tag up call* organized by Maryland Department of the Environment, August 2020.

Conference Presentations

1. Study tropospheric ozone formation from space (oral), *First Year Graduate Colloquium*, Lamont-Doherty Earth Observatory, Columbia University, Palisades, NY, USA, April 2020.
2. Comparison of TROPOMI NO₂ retrievals with ground-based measurements in Los Angeles (poster), *2019 UW-Madison Annual Undergraduate Symposium*, Madison, WI, USA, April 2019.
3. Comparison of TROPOMI NO₂ retrievals with ground-based measurements in California (poster), *AGU Fall 2018 Meeting*, Washington D.C., USA, December 2018.
4. Relating energy efficiency with air quality and health in the United States (poster), *NASA HAQAST4 Meeting*, Madison, WI, USA, July 2018.
5. Predicting the role of plant functional type on net forest productivity and mortality using ecosystem models and informatics in the Predictive Ecosystem Analyzer (PEcAn) (poster), *2017 UW-Madison Annual Undergraduate Symposium*, Madison, WI, USA, April 2017.

Skills

Languages: Chinese (Native); English (Professional); German (Conversational)

Programming Languages: Python (Professional); MATLAB (Intermediate); R (Intermediate)

Earth Science Data Analysis: NCAR Command Language (Professional); ArcGIS (Professional); Interactive Data Language (Intermediate); Environment for Visualizing Images (Basic)