

Updated dates: 8/2/2022

Lixu Jin

PhD student of atmospheric chemistry| The university of Montana| 32 Campus Dr, Missoula, MT 59812

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Research interests

Air quality and atmospheric chemistry; Volatile organic compounds (VOCs); Ozone; Aerosol; 3D chemical transport modeling (CTM) from local to global scale; Box modeling; Machine learning; Field observations;

Education

Ph.D. Chemistry, The University of Montana

B.S. Meteorology/Atmospheric sciences, Lanzhou University

Programing skills

Programing language: Python/IDL/R/MATLAB/Fortran90 programming; UNIX system

Modeling: 3D CTM (GEOS-Chem); box model (F0AM)

Research experiences

University of Montana, Missoula, MT

Graduate Research Assistant with Lu Hu: 2019 – presents

- Developed the interface between 3D GEOS-Chem CTM and 0D F0AM box model.
- Led on model simulations (i.e., GEOS-Chem and F0AM with multiple mechanisms) for air quality within wildfire targeted observational constraints.
- Developed wildfire-targeted 3D GEOS-Chem CTM, provided organic carbon emission budgets, assessed air quality and induced human health implications .

University of Washington, Seattle, WA

Visiting student at Dan Jaffe's group 2018

- Developed and designed F0AM to simulate traffic emissions at Boise, ID

Lanzhou University, Lanzhou, China

Undergraduate Research Assistant with Jiali Luo/Jiankai Zhang: 2016-2019

- Designed data analysis experiments and investigated the interaction between tropopause folds and extreme weather in China physically and statistically.

Honors and awards

Fred Shafizadeh Memorial Scholarship, University of Montana 2022

Stewart Scholarship, University of Montana 2019

Outstanding Graduate Award, Lanzhou University 2019

Excellent Student Scholarship, Lanzhou University 2016, 2018, 2019

Leadership, professional activity and services

Journal reviewer: Atmos. Environ (2021).

President, Chinese student and scholar association, University of Montana, 2021-present

Teaching and leading the lab experiments for CHEM 142 and CHEM 144, University of Montana, 2021 Fall

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Participated in formal teaching training (CHMY 501 Teaching University Chemistry, UM)

Contribution to textbook review and proof (Wenyu Zhang, Yuan Tie. Principle and Method of Doppler Weather Radar Detection [M]. China Meteorological Press, 2017)

Student internship in Beijing and Neimeng Meteorological Bureau, China 2016, 2018

Student internship in Future Weather Company, China 2016

Publication and Conferences

“Constraining volatile organic compound emissions from western US wildfires with WE-CAN airborne observations”, AGU Fall Meeting, Dec. 2020 (poster)

“Volatile Organic Compounds in a Western Montana Valley: Roles of Residential Wood Burning and Impacts of SARS-CoV-2 Shutdowns”, AGU Fall Meeting, Dec. 2020 (poster)

“Calculated OH Reactivity of Western U.S. Wildfires Measured During WE-CAN”, AGU Fall Meeting, Dec. 2021 (poster)

“Constraining VOC emission from western US wildfires with WE-CAN and FIREX-AQ airborne observations”, IGC10, Jun. 2022 (talk)