

# Xiaotian XU

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## Education

### University of Illinois Urbana-Champaign

Ph.D.: Atmospheric Science

since Aug. 2021

Advisor: Prof. **Nicole RIEMER**

### The Hong Kong University of Science and Technology

M.Sc.: Environmental Science & Management

Sep. 2018 – Nov. 2019

Advisor: Prof. **Jianzhen YU**

### Shanxi University

B.Eng.: Environmental Engineering

Sep. 2014 – Jun. 2018

## Professional Experiences

### Graduate Research Assistant

University of Illinois Urbana-Champaign

Aug. 2021 - Aug. 2024, Jan. 2025 - present

Advisor: Prof. **Nicole RIEMER**

### Graduate Teaching Assistant

University of Illinois Urbana-Champaign

Sep. 2024 - Dec. 2024

### Research Assistant

Nanjing University, School of Atmospheric Science

Dec. 2019 – Jun. 2021

Advisor: Prof. **Yanxu ZHANG**

## Publications

9. Paul Connolly, Kai Bi, Sisi Chen, Zhaoze Deng, Javier Etcheto, Yaqiong Hu, Nicole Kim, Wenhan Tang, David Topping, Nsikanabasi Silas Umo, Robert Wagner, **Xiaotian Xu**, Lulin Xue, Seong Soo Yum, Bowen Zhu and Ottmar Möhler, Investigating the competition in cloud droplets activation by different aerosol systems using cloud chamber experiment datasets and modelling, in prep
8. **Xiaotian Xu**, Felipe A. Rivera-Adorno, Alexander Laskin, Matthew West and Nicole Riemer, Evaluate importance of mixing state for determining optical properties for biomass burning aerosol, in prep
7. **Xiaotian Xu**, Fei Jiang, Jeffrey H. Curtis, Zhonghua Zheng, Matthew West and Nicole Riemer, Learning correction factor for CCN concentration in global models, in prep
6. **Xiaotian Xu**, Jeffrey H. Curtis, Matthew West and Nicole Riemer, Understanding the competition between composition averaging process and effective surface tension method, in prep to submit
5. **Xiaotian Xu**, Yu Yao, Yicen Liu, Jeffrey Curtis, Matthew West and Nicole Riemer, Quantifying the Impact of Surfactants on Cloud Condensation Nuclei Activity Using a Particle-Resolved Model, in prep to submit
4. **Xiaotian Xu**, Xu Feng, Haipeng Lin, Peng Zhang, Shaojian Huang, Zhengcheng Song, Yiming Peng, Tzung-May Fu and Yanxu Zhang. Zhang, Modeling the high-mercury wet deposition in the southeastern US with WRF-GC-Hg v1.0, *Geoscientific Model Development*, 15, 3845–3859, 2022. DOI: 10.5194/gmd-15-3845-2022.
3. Yanbin Zhao, Kun Zhang, **Xiaotian Xu**, Huizhong Shen, Xi Zhu, Yanxu Zhang, Yongtao Hu, and Guofeng Shen, Substantial changes in Nitrogen Dioxide and Ozone after excluding meteorological impacts during the COVID-19 Outbreak in mainland China, *Environmental Science & Technology Letters*, 2020. DOI: 10.1021/acs.estlett.0c00304.
2. Hong Geng, Chunsong Jin, Dongpeng Zhang, Shurong Wang, Xiaotian Xu, Xuran Wang, Yuan Zhang, Li Wu, and Chul-Un Ro, Characterization of Size-resolved Urban Haze Particles Collected in Summer and Winter at Taiyuan city, China Using Quantitative Electron Probe X-Ray Microanalysis, *Atmospheric Research*, 2017. DOI: 10.1016/j.atmosres.2017.02.005.

1. Yuan Zhang, Hong Geng, Dongpeng Zhang, Xiaotian Xu, Shurong Wang, Xuran Wnag, Dongwen Wang, and Chul-Un Ro, Influences of Biomass and Coal Burning on Ambient Fine Particulate Matter over Taiyuan City, *Journal of Anhui Agriculture Science*, 2016, 4(5): 109-112, 18. (In Chinese)

## Conference Presentations

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4. Oral, Impact of surfactants on cloud condensation nuclei activity: from microscale to global scale, Gordon Research Conferences: Atmospheric Chemistry, Newry, ME, Aug 2025
3. Oral, Investigating impact of surfactants on cloud condensation nuclei activity with a particle-resolved aerosol model, International Aerosol Modeling Algorithms Conference, Davis, CA, Dec 2023
2. Poster, Quantifying the impact of organic films on cloud condensation nuclei activity using a particle-resolved model, American Chemical Society Spring Meeting, Indianapolis, IN, Mar 2023
1. Poster, Quantifying Impact of Organic Films on Cloud Condensation Nuclei Activity, Midwest Student Conference for Atmospheric Research, Urbana, IL, Oct 2022

## Outreach Experiences

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Department Affairs Committee	2024 - 2025
Graduate-Undergraduate Mentorship Program	2022 - 2023
Graduate-Graduate Mentorship Program	2023 - 2024

## Selected Awards

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Samuel, Berle D. and Jeffrey A. Schlesinger Travel Grant	Fall 2023
Samuel, Berle D. and Jeffrey A. Schlesinger Travel Grant	Spring 2023
The Best ES&T Letters Papers in 2020 (DOI: 10.1021/acs.estlett.1c00562)	2021
Independent Research Project Funding, Nanjing University	2019
First Prize on Publication, 15th Shanxi Challenge Cup	2017
Poster Award, 2016 China-Canada Analytical Chemistry Conference	2016
Excellence Prize, National Undergraduate Innovation & Entrepreneurship Training	2016

## Technical Skills

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**Programing Languages:** FORTRAN, Python, NCL, shell, CDO, NCO

**Model:** PartMC, GEOS-Chem, WRF-CMAQ, WRF-Chem, WRF-GC

## Memberships

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Member, American Meteorology Society (AMS)

Member, American Geophysical Union (AGU)

Member, The American Association for Aerosol Research (AAAR)