CHONGXING FAN

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EDUCATION

University of Michigan, Ann Arbor *September 2019 – Present*
Ph.D. Candidate in Climate and Space Sciences and Engineering
GPA: 4.00/4.00 *(as of Fall 2021)*

Nanjing University *September 2015 – July 2019*
Bachelor of Science in Atmospheric Sciences
GPA: 3.95/4.00

HONORS AND AWARDS

Rackham International Students Fellowship (UM)	*2020*
MICDE Fellowship (UM)	*2019*
Honorable Mention in the Mathematical Contest in Modeling (MCM, COMAP)	*2018*
Chow Tai Fook Scholarship (Top 1%, NJU)	*2018*
China's National Scholarship (Top 1%, NJU)	*2017*
Scholarship of Mr. Liao (Top 1%, NJU)	*2016*

CURRENT AND PREVIOUS GRANTS (* FOR CURRENT GRANTS)

1. *Impacts of Solar Farming on Surface Energy Budget and Climate from Long-Term NASA Satellite Observations, NASA, 9/2022-8/2024, $150,000

PEER-REVIEWED PUBLICATIONS

Published manuscripts:

1. **Fan, C.**, & Huang, X. (2021). Direct impact of solar farm deployment on surface longwave radiation. *Environmental Research Communications*, 3(12), 125006. https://doi.org/10.1088/2515-7620/ac40f1
2. **Fan, C.**, & Huang, X. (2020). Satellite-observed changes of surface spectral reflectances due to solar farming and the implication for radiation budget. *Environmental Research Letters*, 15(11), 114047. https://doi.org/10.1088/1748-9326/abbdea
3. **Fan, C.**, Wang, M., Rosenfeld, D., Zhu, Y., Liu, J., & Chen, B. (2020). Strong precipitation suppression by aerosols in marine low clouds. *Geophysical Research Letters*, 47(7), e2019GL086207. https://doi.org/10.1029/2019GL086207

Submitted manuscripts:

1. **Fan, C.**, Chen, Y.-H., Chen, X., Lin, W., Yang, P., & Huang, X. A refined understanding

of the cloud longwave scattering effects in climate model. *(submitted to Journal of Advances in Modeling Earth Systems)*

2. Huang, X., Chen, X., **Fan, C.**, Kato, S., Loeb, N., Bosilovich, M., et al. A synopsis of AIRS global-mean clear-sky radiance trends from 2003 to 2020. *(submitted to Journal of Geophysical Research: Atmospheres)*

Manuscript in preparation:

1. **Fan, C.**, & Huang, X. Cloud longwave scattering in isothermal atmosphere.
2. **Fan, C.**, Chen, Y.-H., Chen, X., Lin, W., Yang, P., & Huang, X. Radiative forcing and feedback modified by two missing longwave radiative transfer processes in E3SM version 2.

PROFESSIONAL SERVICES

1. **Peer reviewer** for *Advances in Atmospheric Sciences*.

CONFERENCES, PROCEEDINGS, AND ABSTRACTS

1. **Fan, C.**, & Huang, X., Satellite-Observed Changes of Surface Radiative Properties due to Solar Farming and the Implication for Radiation Budget. Midwest Student Conference on Atmospheric Research 2022. Urbana, IL, USA. October 1-2, 2022.
2. **Fan, C.**, Chen, Y., Jing, X., Chen, X., Lin, W., Huang, X., & Yang, P., Cloud scattering and surface spectral emissivities in climate model: Performance evaluation and feedback analysis. 2022 CFMIP Meeting on Clouds, Precipitation, Circulation and Climate Sensitivity. Seattle, WA, USA. July 19-22, 2022
3. **Fan, C.**, & Huang, X., Satellite-Observed Changes of Surface Radiative Properties due to Solar Farming and the Implication for Radiation Budget. 2022 International Radiation Symposium. Thessaloniki, Greece. July 4-8, 2022.
4. **Fan, C.**, & Huang, X., Solar Farm as an ideal test bed for satellite surface emissivity and temperature retrieval algorithms. AGU Fall Meeting 2021. New Orleans, LA, USA. December 13-17, 2021.
5. **Fan, C.**, & Huang, X., Use different machine-learning algorithms for clear-sky detections in infrared hyperspectral observations: assessment and physical interpretability. 3rd NOAA Workshop on Leveraging AI in Environmental Sciences. Online. September 13-17, 2021.
6. **Fan, C.**, & Huang, X., Satellite-observed changes of surface spectral reflectances due to solar farming and the implication for radiation budget. AGU Fall Meeting 2020. Online. December 1-17, 2020.

INTERNSHIP EXPERIENCE

Globalink Research Internship *July 2018 – October 2018*

- Project Title: Evaluation of quantitative precipitation estimation from model, satellite and radar
- Advisor: Prof. Yongsheng Chen (York University, Canada)

Meteorological Bureau of Hunan Province, China *February 2018*

- Weather forecast intern

TEACHING EXPERIENCE

Grader for CLIMATE 586 (Advanced Data Analysis) *Fall 2022*

- Responsibility: grading assignments

EXTRA-CURRICULUM ACTIVITIES

Daily Email Group for International Students *October 2019 – October 2020*

- Created and organized the group where members write emails to other group members at any frequency they like to share their life, experiences, and stories.
- Named to be the English Language Institute (ELI) Student of the Month in December 2019. https://lsa.umich.edu/eli/news-events/all-news/dec19studentofthemonth.html

SKILLS

Computer Skills

- Programming languages: C/C++, Fortran, Visual Basic, Python, NCL
- Platforms: Windows, Linux, macOS
- Applications: Excel, MindMaster, Git, Adobe Premiere Pro, Adobe Audition, OBS

Certifications

- Jiangsu Computer Rank Examination Certificate of Level Two: C Language (Excellent Grade, 2017)
- National Computer Rank Examination Certificate of Level Two: C Language (Excellent Grade, 2017)
- Jiangsu Computer Rank Examination Certificate of Level Two: Visual Basic (Excellent Grade, 2016)