

Dongwei (David) Fu

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EDUCATION

University of Illinois at Urbana-Champaign

Champaign, IL

Ph.D. in Atmospheric Sciences

December 2018 – present

Tentative thesis title: From the study of satellite retrieved cloud microphysics to a better understanding of aerosol-cloud interaction

Master of Science in Atmospheric Sciences

August 2015 – December 2018

Thesis: Examination of the behavior of MODIS-retrieved cloud droplet effective radius through MISR-MODIS data fusion

Wuhan University

Wuhan, Hubei

Bachelor of Engineering in Remote Sensing Sciences and Technologies

August 2011 – August 2015

PROFESSIONAL EXPERIENCE

Graduate Research Assistant at University of Illinois at Urbana-Champaign

August 2015 – present

Advisor: Dr. Larry Di Girolamo (*Ph.D.*)

- *Validation for bi-spectral retrieved cloud effective radius from passive satellite sensors against aircraft measurements during the CAMP2Ex field campaign*
- *Implemented a bias-correction technique for the MODIS-retrieved cloud droplet effective radius through MISR-MODIS data fusion*
- *participated in the collaboration work for the Development of new theoretical framework for inferring ice crystal surface roughness from multi-angular sensor measurements*

PRESENTATIONS

Oral Presentations:

- Fu, D., Di Girolamo, L., Liang, L., and Zhao, G. (2018): Estimating the Regional Bias of MODIS-retrieved Cloud Droplet Effective Radius through MISR-MODIS Data Fusion, 15th Conference on Cloud Physics; and the 15th Conference on Atmospheric Radiation, Vancouver, British-Columbia, Canada.
- Fu, D., Di Girolamo, L., Liang, L., and Zhao, G. (2017): Estimating the Regional Bias of MODIS-retrieved Cloud Droplet Effective Radius through MISR-MODIS Data Fusion, University of Illinois, Department of Atmospheric Sciences Seminar. Urbana, Illinois, USA.
- Fu, D., Di Girolamo, L., Liang, L., Zhao, G., and Su, M. (2016): The Effects of Cloud Heterogeneity on Microphysical Retrievals through MISR-MODIS Data Fusion, MISR Science Team Meeting, Pasadena, California, USA.

Poster Presentations:

- Fu, D., Di Girolamo, L., Liang, L., and Zhao, G. (2018): Estimating the Regional Bias of MODIS-retrieved Cloud Droplet Effective Radius through MISR-MODIS Data Fusion, 2018 Midwest Student Conference on Atmospheric Research, Urbana, Illinois, USA.
- Fu, D., Di Girolamo, L., Liang, L., and Zhao, G. (2017): The Observed Behavior of the Bias in MODIS-retrieved Cloud Droplet Effective Radius through MISR-MODIS Data Fusion, AGU Fall Meeting, New Orleans, Louisiana, USA.

PUBLICATIONS

- Fu, D., Di Girolamo, L., Liang, L., & Zhao, G. (2019). Regional biases in MODIS marine liquid water cloud drop effective radius deduced through fusion with MISR. *Journal of Geophysical Research: Atmospheres*, 124, 13182–13196. <https://doi.org/10.1029/2019JD031063>
- Wang, Y., Yang, P., Hioki, S., King, M. D., Baum, B. A., Di Girolamo, L., & Fu, D. (2019). Ice cloud optical thickness, effective radius, and ice water path inferred from fused MISR and MODIS measurements based on a pixel-level optimal ice particle roughness model. *Journal of Geophysical Research: Atmospheres*, 124, 12126–12140. <https://doi.org/10.1029/2019JD030457>
- Wang, Y.; Hioki, S.; Yang, P.; King, M.D.; Di Girolamo, L.; Fu, D.; Baum, B.A. Inference of an Optimal Ice Particle Model through Latitudinal Analysis of MISR and MODIS Data. *Remote Sens.* 2018, 10, 1981.

LEADERSHIPS

2019 Midwest Student Conference for Atmospheric Research

Urbana, IL

Head of Event and Planning Committee

02/2019-08/2019

- In charge of the event and planning committee, including the timeline planning for the various sessions and events throughout the conference.

University of Illinois at Urbana-Champaign Chinese Student and Scholar Association (CSSA)

Champaign, IL

Graduates Department Vice Director

01/2017 – 05/2018

- Lead director of several major events for the biggest student organization (with 400 active members) in the University of Illinois at Urbana-Champaign
- Providing immediate solutions for any emergency situations and unforeseen cases while communicating with multiple groups throughout the ongoing events.

SKILLS

- **Language:** English, Chinese
- **Computer:** Python, C, Matlab, Linux, NCL, ArcGIS, AutoCAD, Microsoft Word, Excel, PowerPoint