CHENGFENG FENG

Research Associate
Atmospheric Sciences
The University of Utah

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Homepage | Github
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RESEARCH INTERESTS

Data Assimilation, Satellite, VarBC, Tropical Cyclones, African Easterly Wave, Tropical Convections, Vortex Tracking, Machine Learning.

SKILLS

Languages: Python, Fortran, Matlab, NCL.

Systems: GSI, HAFS, WRF, HWRF.

WORKING EXPERIENCE

8/2024 - 8/2026 **Research Associate, Atmospheric Sciences, the University of Utah**, Salt Lake City, Utah, United States

EDUCATION

9/2018 - 7/2024 **Ph.D., Atmospheric Sciences, the University of Utah**, Salt Lake City, Utah, United States
Dissertation: Assimilation of All-Sky GOES-16 Water Vapor Channels, Aeolus Satellite Winds, and Airborne Lidar Observations for Improved Numerical Simulations of Tropical Cyclones and Convections
Advisor: Dr. Zhaoxia Pu

9/2015 - 8/2018 **M.S., Meteorology, Key Laboratory of Mesoscale Severe Weather, Nanjing University**, Nanjing, China
Thesis: Interdecadal Change of Tropical Cyclone Activity in the Western North Pacific
Advisor: Dr. Juan Fang

9/2011 - 8/2015 **B.S., Atmospheric Sciences, Kuang Yaming Honors Class'11, Nanjing University**, Nanjing, China

ACTICLES IN PEER-REVIEWED JOURNALS

In Preparation **Feng, C.**, and Z. Pu. Benefits of High-Resolution Analysis to Gray Zone Simulation of an Ephemeral Cold Fog Event During CFACT Field Campaign

In Submission **Feng, C.**, Z. Pu, A. R. Nehrir, K. M. Bedka, and J. Doyle. The Impacts of Assimilating DAWN and HALO on Numerical Simulations of Tropic Convections Associated with African Easterly Waves During NASA's CPEX-AW and CPEX-CV. Submitted to the Journal of Atmospheric and Oceanic Technology.

2024 **Feng, C.**, and Z. Pu (2024). All-sky Assimilation of GOES-16 Water Vapor Channels in Consideration of Cloud-Dependent Interchannel Observation-Error Correlations. Monthly Weather Review, In press. DOI

2023 **Feng, C.**, and Z. Pu (2023). The Impacts of Assimilating Aeolus Horizontal Line-of-Sight Winds on Numerical Predictions of Hurricane Ida (2021) and a Mesoscale Convective System over the Atlantic Ocean. Atmospheric Measurement Techniques, 16(10), 2691-2708. DOI

2022 **Feng, C.**, and Z. Pu (2022). A Bias Correction Scheme with the Symmetric Cloud Proxy Variable and Its Influence on Assimilating All-Sky GOES-16 Brightness Temperatures. Monthly Weather Review, 150(12), 3305-3323. DOI

Wei, Y., F. Liu, H. Ren, G. Chen, **C. Feng**, and B. Chen (2022). Western Pacific Premoistening for Eastward-Propagating BSISO and Its ENSO Modulation. Journal of Climate, 35(15), 4979–4996. DOI

HONOR AND AWARDS

2023 **First Place Oral Presentation** at the 27th Conference on Integrated Observing and Assimilation Systems for the Atmosphere, Oceans, and Land Surface (IOAS-AOLS) during the 103rd AMS annual meeting: A bias correction scheme with the symmetric cloud proxy variable and its influence on assimilating all-sky GOES-16 brightness temperatures

Edward J. Zipser Award for Excellence in Graduate Research Award in the Department of Atmospheric Sciences at the University of Utah

2016, 2017 The First-Class Graduate Student Scholarship

SERVICE AND PROFESSIONAL MEMBERSHIPS

2023 - Present Reviewer for Weather and Forecasting, Journal of Advances in Modeling Earth Systems

2018 - Present Member of American Meteorological Society (AMS)