

## Bosong Zhang

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## Education

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2018–2021	Ph.D. in Atmospheric Science	University of Miami
2016–2018	M.S. in Meteorology and Physical Oceanography	University of Miami
2010–2014	B.S. in Atmospheric Science	Nanjing University

## Research Interests

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- Convective Aggregation: Tropical cyclones, the Madden-Julian Oscillation (MJO)
  - Numerical Modeling
  - Radiative Feedbacks (temperature, water vapor, albedo and cloud)
  - Weather Extremes
  - Climate Change
  - Climate Sensitivity

## Publications

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1. **Zhang, B.**, Soden, B. J., Vecchi, G. A., & Yang, W. (2020). The Role of Radiative Interactions in Tropical Cyclone Development under Realistic Boundary Conditions. *Journal of Climate*, 1-38.
  2. **Zhang, B.**, Soden, B. J., & Vecchi, G. A. (2020). The Impact of Radiative Interactions on Convective Aggregation under Realistic Boundary Conditions. In preparation.
  3. Medeiros, B., Clement, A. C., Benedict, J. J., & **Zhang, B.** (2020). Investigating the Impact of Cloud Radiative Feedbacks on Tropical Precipitation Extremes. Submitted to NPJ.
  4. Liu, M., Vecchi, G. A., Soden, B. J., Yang W., **Zhang, B.** (2020). Enhanced hydrological cycle increases ocean heat uptake and moderates transient climate sensitivity. EarthArXiv.
  5. **Zhang, B.**, Kramer, R. J., & Soden, B. J. (2019). Radiative Feedbacks Associated with the Madden–Julian Oscillation. *Journal of Climate*, 32(20), 7055-7065.
  6. **Zhang, B.**, & Soden, B. J. (2019). Constraining climate model projections of regional precipitation change. *Geophysical Research Letters*, 46(17-18), 10522-10531.
  7. Zhang, C., & **Zhang, B.** (2018). QBO-MJO Connection. *Journal of Geophysical Research: Atmospheres*, 123(6), 2957-2967.

## Research Experience

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- Investigated the impact of radiative interactions on tropical cyclones using HiRAM, 2019-2020.
- Examined the response of convective organization and extreme precipitation to suppressed radiative interactions, 2019-2020.
- Used radiative kernels to quantify radiative feedbacks associated with the MJO, 2018-2019.
- Analyzed global precipitation patterns retrieved from CMIP5 before and after bias correction and proposed a simple approach to reduce uncertainty in future projections of climate change, 2018-2019.
- Investigated the relationship between the Madden-Julian Oscillation (MJO) and Quasi-biennial Oscillation (QBO) based on observations, 2016-2017.

## Teaching Experience

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- Teaching assistant, ATM 307: Introduction to the Physics of Climate, Prof. Amy Clement
- Teaching assistant, ATM 265-D1: Atmospheric Chemistry, Prof. Anthony J. Hynes
- Teaching assistant, ATM 102: Introduction to Weather and Climate, Prof. Anthony J. Hynes

## Service

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- Reviewer for *Geophysical Research Letters*, *Journal of Geophysical Research-Atmospheres*, *Climate Dynamics*, *Monthly Weather Review*.

## Societies

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- American Meteorological Society
- American Geophysical Union

## Conferences and workshops

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- vEGU21, April 19-30, 2021
- CFMIP Virtual Meeting on Clouds, Precipitation, Circulation, and Climate Sensitivity, September 14-17, 2020
- American Geophysical Union Fall Meeting, December 7-11, 2020
- 101st American Meteorological Society Annual Meeting (Fourth Special Symposium on Tropical Meteorology and Tropical Cyclones), January 10-14, 2021
- Gordon Research Seminar and Conference on Radiation and Climate, Bates College, Lewiston, ME, July 21-26, 2019
- NASA PMM (Precipitation Measurement Missions) Science Team Meeting, Phoenix, AZ, October 8-12, 2018