

CHUAN-CHIEH CHANG

Email: ccchang3@illinois.edu

Education

- 09/2016 – Present Ph.D. candidate, Atmospheric Sciences, *University of Illinois at Urbana-Champaign*
Advisor: Prof. Zhuo Wang; Thesis topic: Extratropical Impacts on Prediction of Atlantic Tropical Cyclones from Seasonal to Decadal Time Scales
- 09/2012 – 06/2014 M.S., Atmospheric Sciences, *National Taiwan University*
Advisor: Prof. Chun-Chieh Wu; Topic: Understanding the Mechanisms Leading to the Rapid Intensification of Typhoon Megi (2010)
- 09/2008 – 06/2012 B.S., Atmospheric Sciences, *National Taiwan University*

Professional and Research Experience

- 01/2020 – Present **Co-Principal Investigator**, STAMPEDE-2 Supercomputing Research
Principal Investigator: Zhuo Wang
Topic: Prediction and Predictability of Atlantic Tropical Cyclones and the Role of Extratropical Processes
- 01/2020 – Present **Co-Principal Investigator**, Blue Waters Supercomputing Research
Principal Investigator: Zhuo Wang
Topic: Prediction and Predictability of Atlantic Tropical Cyclones and the Role of Extratropical Processes
- 12/2016 – 12/2019 **Principal Investigator**, NCAR Graduate Student/Postdoc Research
Co-Principal Investigator: Zhuo Wang
Topic: Seasonal Tropical Cyclone Predictions in an Active TC year and an Inactive TC year: the Possible Impacts of Sea Surface Temperature Anomaly and Rossby Wave Breaking
- 09/2016 – Present Research Assistant, University of Illinois at Urbana-Champaign, Department of Atmospheric Sciences
- 07/2015 – 07/2016 Research Assistant, National Taiwan University, Department of Atmospheric Sciences
- 08/2014 – 07/2015 Second lieutenant forecaster, Taipei Airport, the 8th Weather Center
- 09/2012 – 06/2014 Research Assistant, National Taiwan University, Department of Atmospheric Sciences

Publications

Chang, C.-C. and Z. Wang, 2020: Multiyear Hybrid Prediction of Atlantic Tropical Cyclone Activity and the Predictability Sources. *J. Climate*, **33**, 2263–2279.

Chang, C.-C. and Z. Wang, 2018: Relative Impacts of Local and Remote Forcing on Tropical Cyclone Frequency in Numerical Model simulations. *Geophys. Res. Lett.*, **45**, 7843-7850.

Chang, C.-C. and C. Wu, 2017: On the Processes Leading to the Rapid Intensification of Typhoon Megi (2010). *J. Atmos. Sci.*, **74**, 1169–1200.

Teaching Experience

- 02/2020-06/2020 Graduate Teaching Assistant, ATMS 314: Mesoscale Dynamics-Section 1,
02/2018-06/2018 Graduate Teaching Assistant, ATMS 201: General Physical Meteorology,

Honors and Grants Received

- 05/2020 Ogura Award for outstanding research paper by a graduate student in atmospheric sciences

02/2020 Travel Award, AMS's 34th Conference on Hurricanes and Tropical Meteorology, American Meteorological Society

02/2020 Research Poster Award, 2st place, School of Earth, Society and Environment, University of Illinois at Urbana-Champaign

03/2018 Travel Award, Graduate College, University of Illinois at Urbana-Champaign

03/2018 Research Poster Award, 1st place, School of Earth, Society and Environment, University of Illinois at Urbana-Champaign

04/2014 Research Poster Award, *Excellent*, 2014 Graduate Student Research Poster Competition in Atmospheric Sciences, Central Weather Bureau, Taiwan

Scholarly Presentations

Chang, C.-C. and Zhuo Wang, 2021 (invited seminar): Extratropical Impacts on Prediction and Variability of Tropical Cyclones from Seasonal to Decadal Timescales, Chinese Culture University, Taiwan.

Chang, C.-C. and Zhuo Wang, 2020 (poster): Multi-year Prediction of Atlantic Tropical Cyclones. 2020 SESE Research Review, Urbana, IL.

Chang, C.-C. and Zhuo Wang, 2019: Multi-year Prediction of Atlantic Tropical Cyclones. American Meteorological Society, 99th Annual Meeting, Phoenix, AZ.

Zhuo Wang and Chang, C.-C., 2018 (poster): Multi-year Prediction of Atlantic Tropical Cyclones. American Geophysical Union, 2018 Fall Meeting, Washington, DC.

Zhuo Wang and Chang, C.-C., 2018: Multi-year Prediction of Atlantic Tropical Cyclones. NOAA's 43th Climate Diagnostics and Prediction Workshop, Santa Barbara, CA.

Chang, C.-C. and Zhuo Wang, 2018 (poster): Multi-year Prediction of Atlantic Tropical Cyclones. The 2018 Midwest Student Conference on Atmospheric Research, Urbana, IL.

Chang, C.-C. and Zhuo Wang, 2018: Relative Impacts of Tropical and Extratropical Forcing on Atlantic Tropical Cyclones in Numerical Simulations. 33rd Conference on Hurricanes and Tropical Meteorology, Ponte Vedra, FL.

Chang, C.-C. and Zhuo Wang, 2018 (poster): Relative Impacts of Tropical and Extratropical Forcing on Atlantic Tropical Cyclones in Numerical Simulations. 2018 SESE Research Review, Urbana, IL.

Chang, C.-C. and Zhuo Wang, 2017 (poster): Seasonal Tropical Cyclone Predictions in an Active year and an inactive year: The Possible Impacts of Sea Surface Temperature Anomaly and Rossby Wave Breaking. 2017 SESE Research Review, Urbana, IL.

Chang, C.-C. and Chun-Chieh Wu, 2014: What Caused the Rapid Intensification of Typhoon Megi (2010)? 31rd Conference on Hurricanes and Tropical Meteorology, San Diego, CA

Chang, C.-C. and Chun-Chieh Wu, 2014 (poster): What Caused the Rapid Intensification of Typhoon Megi (2010)? 2014 Graduate Student Research Poster Competition in Atmospheric Sciences, Taipei, Taiwan

Workshop and Tutorial Experience

08/2019 Community Earth System Model (CESM) tutorial, National Center of Atmospheric Research Center (NCAR)

Modeling Experience

1. The Weather Research and Forecasting (WRF) model
2. The Community Earth System Model (CESM)

Programing Skills

Linux, Fortran, Python, GrADS, NCL