

DOUGLAS E. MILLER
CURRICULUM VITAE

CONTACT INFORMATION

Department of Atmospheric Sciences
University of Illinois at Urbana-Champaign
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EDUCATION

12/2020 (Expected)	Ph.D.	Atmospheric Sciences, University of Illinois at Urbana-Champaign Advisor: Zhuo Wang, Ph.D
05/2016	B.S.	Atmospheric Sciences, Purdue University, West Lafayette

RESEARCH EXPERIENCE

01/2017-Present	<i>Graduate Research Assistant – Advisor: Zhuo Wang, Ph.D., University of Illinois at Champaign-Urbana</i> Subseasonal to seasonal prediction and predictability of extreme and severe weather
01/2016-07/2016	<i>Undergraduate Research Assistant – Advisor: Daniel Chavas, Ph.D., Purdue University</i> Investigated the relationship between initial mid-tropospheric environmental moisture and tropical cyclone size in model simulations
01/2015-08/2015	<i>Undergraduate Research Assistant – Advisor: Yutian Wu, Ph.D., Purdue University</i> Investigated the mid-latitude atmospheric response to arctic amplification using data from the CMIP5

TEACHING EXPERIENCE

01/2019-05/2019	<i>Lecturer for ATMS 140: “Climate and Global Change”, University of Illinois at Champaign-Urbana</i> Developed course material, lectured, and managed a TA
08/2016-12/2016	<i>Teaching Assistant , University of Illinois at Urbana-Champaign</i> Lead review sessions and graded assignments in “Atmospheric Dynamics I”
01/2016-05/2016	<i>Teaching Assistant, Purdue University</i> Graded assignments for “Climate, Science, and Society

RESEARCH INTEREST

- Subseasonal to Seasonal Prediction and Predictability
- Climate Variability
- Model Evaluation
- Large Scale Climate Dynamics

PROGRAMMING SKILL

- C, Fortran 90, MATLAB, Python, UNIX

AWARDS

- Edmond and Mary Henelt Scholarship: 2015-2016, Purdue University
- Earth, Atmospheric, and Planetary Sciences Ambassador Scholarship: Spring 2016, Purdue University
- College of Science Ellen Aldag Sawyer Memorial Scholarship: Spring 2016, Purdue University

LEADERSHIP/OUTREACH

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| 12/2019 | Contributor to the Developmental Testbed Center (DTC) Model Evaluation Tools (MET) |
| 08/2018-02/2019 | Committee member for 2019 School of Earth, Society & Environment Research Review, University of Illinois at Champaign-Urbana |
| 07/2018-06/2019 | Elected President in Department of Atmospheric Sciences Student Organization, University of Illinois at Champaign Urbana |
| 09/2018 | Session rapporteur for the International Conferences on Subseasonal to Decadal Prediction, Boulder, Colorado. |
| 02/2018-10/2018 | Scheduling and Abstract; and Event and Planning Committees for the 2018 Midwest Student Conference for Atmospheric Research |
| 04/2018 | Judge for Undergraduate Research Symposium, University of Illinois at Champaign-Urbana |
| 08/2017-05/2018 | Mentor to Atmospheric Science Undergraduate Students, University of Illinois at Champaign-Urbana |
| 08/2015-05/2016 | Chair Position for Purdue University Meteorological Association, Local Chapter for the American Meteorological Society |
| 08/2015-05/2016 | Department of Earth, Atmospheric, and Planetary Science Ambassador, Purdue University |
| 08/2014-05/2016 | College of Science Ambassador, Purdue University |

PEER REVIEWED PUBLICATIONS

1. **Miller, D. E.**, Wang, Z., Li, B., Harnos, D. S., & Ford, T. W: Skillful Subseasonal Prediction of United States Extreme Warm Days and Standardized Precipitation Index in Boreal Summer. *Submitted to Journal of Climate*.
2. **Miller, D. E.**, Wang, Z., Trapp, R. J., & Harnos, D. S.. (2020). Hybrid Prediction of Weekly Tornado Activity out to Week 3: Utilizing Weather Regimes. *Geophysical Research Letters*, 47, e2020GL087253. <https://doi.org/10.1029/2020GL087253>

3. Merryfield, W. J. [et al., including **Miller, D. E.**] 2020: Current and emerging developments in subseasonal to decadal prediction. *Bulletin of the American Meteorological Society (BAMS)*. **0**. <https://doi.org/10.1175/BAMS-D-19-0037.1>
4. **Miller, D. E.**, & Wang, Z. 2019: Skillful Seasonal Prediction of Eurasian Winter Blocking and Extreme Temperature Frequency. *Geophysical Research Letters*, 46. <https://doi.org/10.1029/2019GL085035>
5. **Miller, D. E.** & Wang, Z. 2019: Assessing Seasonal Predictability Sources and Windows of High Predictability in the Climate Forecast System, Version 2. *J. Climate*, 32, 1307–1326. <https://doi.org/10.1175/JCLI-D-18-0389.1>

PUBLICATIONS (In Prep)

1. **Miller, D. E.** & Wang, Z: Onset Mechanisms and Predictability of Winter Blocking. *In Prep*.
2. Hoogewind, K. A., Gensini, V. A., **Miller, D. E.**, Trapp, R. J., & Brooks, H. E.: Subseasonal Predictability of Multiday Tornado and Hail Events. *In Prep*.

CONFERENCE PRESENTATIONS

1. Miller, D. E., Wang, Z., Li, B., Harnos, D. S., & Ford, T. W (2020), “Skillful Subseasonal Prediction of United States Extreme Warm Days and Standardized Precipitation Index in Boreal Summer.” 45th Climate Diagnostics and Prediction Workshop, Duke University, Durham, North Carolina.
2. Miller, D. E., Wang, Z., Li, B., Harnos, D. S., & Ford, T. W (2020), “Skillful Subseasonal Prediction of United States Extreme Warm Days and Standardized Precipitation Index in Boreal Summer.” 4th Midwest Student Conference on Atmospheric Research (MSCAR), University of Illinois.
3. Douglas E. Miller and Zhuo Wang (2020), “Subseasonal Hybrid Prediction of Severe Storm Activity: Utilizing Large-Scale Weather Regimes”, AMS 33rd Conference on Climate Variability and Change, Boston, Massachusetts.
4. Douglas E. Miller and Zhuo Wang (2019), “Subseasonal Hybrid Prediction of Severe Storm Activity: Utilizing Large-Scale Weather Regimes”, 44th Climate Diagnostics and Prediction Workshop, Duke University, Durham, North Carolina.
5. Douglas Miler and Zhuo Wang (2019), “Skillful Seasonal Prediction of Winter Blocking and Extreme Temperature Frequency”, AMS 32nd Conference on Climate Variability and Change, Phoenix, Arizona.
6. Douglas Miller and Zhuo Wang (2019), “Assessing the Sources of Subseasonal to Seasonal Predictability in the Climate Forecast System Version 2”, AMS Special Symposium on Catalyzing Innovation in Weather Science Internationally, Phoenix, Arizona.
7. Douglas Miller and Zhuo Wang (2018), “Skillful Seasonal Prediction of Winter Blocking and Extreme Temperature Frequency”, American Geophysical Union Annual Meeting, Washington, D.C.

8. Douglas Miler and Zhuo Wang (2018), "Skillful Seasonal Prediction of Winter Blocking and Extreme Temperature Frequency", 2nd Midwest Student Conference on Atmospheric Research (MSCAR), University of Illinois.
9. Douglas Miler and Zhuo Wang (2018), "Assessing the Sources of Subseasonal to Seasonal Predictability in the Climate Forecast System Version 2", International Conferences on Subseasonal to Decadal Prediction, Boulder, Colorado.
10. Douglas Miler and Zhuo Wang (2018), "Assessing the Sources of Subseasonal to Seasonal Predictability in the Climate Forecast System Version 2", 2018 School of Earth, Society & Environment Research Review, University of Illinois.
11. Douglas Miller and Zhuo Wang (2018), "Assessing the Sources of Subseasonal to Seasonal Predictability in the Climate Forecast System Version 2", AMS 31st Conference on Climate Variability and Change, Austin, Texas.
12. Douglas Miler and Zhuo Wang (2017), "Assessment of the GEFS/CFS and the Effects of ENSO/NAO on Predictive Skill", 1st Midwest Student Conference on Atmospheric Research (MSCAR), University of Illinois.
13. Douglas Miler and Zhuo Wang (2017), "Assessment of the GEFS/CFS and the Effects of ENSO/NAO on Predictive Skill", AMS 30th Conference on Climate Variability and Change, 24th Conference on Probability and Statistics in the Atmospheric Sciences, and the 16th Conference on Artificial Intelligence, Baltimore, Maryland.
14. Douglas Miler and Zhuo Wang (2017), "Impacts of the ENSO and the NAO on the Northern Hemisphere Winter Predictive Skill", 2017 School of Earth, Society & Environment Research Review, University of Illinois.
15. Douglas Miller and Yutian Wu (2016), "Mid-Latitude Atmospheric Response to Arctic Amplification Using Pre-Industrial Climate Model Integrations", Purdue Undergraduate Research Symposium
16. Douglas Miller and Yutian Wu (2016), "Mid-Latitude Atmospheric Response to Arctic Amplification Using Pre-Industrial Climate Model Integrations", AMS 15th Annual Student Conference, New Orleans, Louisiana.