

# HOLLY MALLINSON

Natural History Building  
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## EDUCATION

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**University of Illinois at Urbana-Champaign** expected December 2022  
PhD. in Atmospheric Sciences  
*Committee: Dr. Sonia Lasher-Trapp (primary advisor),  
Dr. Robert J. Trapp, Dr. Nicole Riemer, Dr. Kelly Mahoney (NOAA)*

**University of Illinois at Urbana-Champaign** August 2018  
M.S. in Atmospheric Sciences  
*Thesis: Microphysical Influences on Cold Pools  
Advisor: Dr. Sonia Lasher-Trapp*

**University of Louisiana-Monroe** May 2016  
B.S. in Atmospheric Sciences  
Minor in History  
*Cum laude*

## EMPLOYMENT AND APPOINTMENTS

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**Graduate Research Assistant** August 2016 - present  
*Department of Atmospheric Sciences*

**Graduate Teaching Assistant** Fall 2019  
*Department of Atmospheric Sciences  
ATMS 100: Introduction to Meteorology*  
Rated excellent based on student evaluations

**Intern: NASA Advanced Computing for Earth Sciences-  
Computational Modeling Algorithms and Cyberinfrastructure** Summer 2016  
*NASA Goddard Space Flight Center,  
Laboratory for Mesoscale Atmospheric Processes, Code 612*  
Mentors: Drs. Amber Emory and Stephen Nicholls

**Volunteer: National Weather Service** Spring 2016  
*Jackson, MS*

**Participant: Gulf Coast Region Research  
Experience for Undergraduates (REU)** Summer 2015  
*Texas A&M University, College Station, TX*  
Mentor: Dr. Courtney Schumacher

**Undergraduate Researcher** 2015-2016  
*University of Louisiana-Monroe*  
Mentor: Dr. Todd Murphy

## FIELD CAMPAIGNS

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**Remote Sensing of Electrification, Lightning, and Mesoscale/Microscale Processes with Adaptive Ground Observations (RELAMPAGO)**  
*Cordoba, Argentina*

November-December 2018

UI Sounding Team: Data and equipment manager, driver, trained others on launching weather balloons  
CSWR: Assisted in Mobile Mesonet operations, C-band radar disassembly

**Verification of the Origin of Rotation in Tornadoes Experiment- Southeast (VORTEX-SE)**  
*Huntsville, AL*

Spring 2016

ULM Sounding Team: Launched weather balloons  
Purdue: Mobile disdrometers deployment

**REU Field Research Experience**  
*Galveston, TX*

Summer 2015

Studied sea-breeze convection using DOW, SoDAR vertical wind profiler, weather balloons  
Studied variations in air quality using particle and ozone counters

**Hail Spatial and Temporal Observing Network Effort (HailSTONE)**  
*Kansas City, MO*

May 2015

Collected and documented hail size and location  
Provided real-time radar support

## PEER-REVIEWED PUBLICATIONS

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Mallinson, H.M. and S.G. Lasher-Trapp, 2019: An Investigation of Hydrometeor Latent Cooling upon Convective Cold Pool Formation, Sustainment, and Properties. *Mon. Wea. Rev.*, **147**, 3205-3222, <https://doi.org/10.1175/MWR-D-18-0382.1>

Blair, S.F. et al., 2017: High-Resolution Hail Observations: Implications for NWS Warning Operations. *Wea. Forecasting*, **32**, 1101-1119.

## CONFERENCE PRESENTATIONS

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\* *denotes talk*

Mallinson, H.M., S.G. Lasher-Trapp, 2020: Sensitivity of Hail Processes and Characteristics to WRF Input Options. 3rd Annual Midwest Student Conference on Atmospheric Research, Champaign, IL.

\*Mallinson, H.M., M. Grover, R. J. Trapp, 2020: Influence of Terrain and Environment on Cold Pools During RELAMPAGO. 100th Annual AMS Conference, Boston, MA, Amer. Meteor. Soc.

Mallinson, H.M., S. G. Lasher-Trapp, 2020: An Investigation of Hydrometeor Latent Cooling Upon Cold Pool Formation, Sustainment, and Properties. 100th Annual AMS Conference, Boston, MA, Amer. Meteor. Soc.

\*Trapp, J., M. Grover, H. Mallinson, 2019: The Dynamical Coupling of Convective Updrafts, Downdrafts, and Cold Pools during RELAMPAGO. RELAMPAGO Data Analysis Workshop, Buenos Aires, Argentina.

\*Mallinson, H.M., S.G. Lasher-Trapp, 2019: Connecting Microscale Processes to Mesoscale Phenomena: Improving Cold Pool Parameterizations. 7th Annual NCSA Blue Waters Symposium for Petascale Science and Beyond, Sunriver, OR.

\*Mallinson, H.M., S. G. Lasher-Trapp, 2018: Microphysical Influences on Cold Pools. 15th Conference on Cloud Physics, Vancouver, B.C., Canada, Amer. Meteor. Soc.

\*Trapp et al, 2018.: Inter-relationships between convectively generated cold pools, updraft/downdraft characteristics, and microphysical processes. DOE Atmospheric Systems Research Science Team Meeting, Tysons, VA.

Trapp et al, 2018.: Inter-relationships between convectively generated cold pools, updraft/downdraft characteristics, and microphysical processes. DOE Atmospheric Systems Research Science Team Meeting, Tysons, VA.

\*Dawson et al., 2017: Overview of Purdues Mobile Disdrometer Operations During VORTEX-SE 2016-2017. 38th Conference on Radar Meteorology, Chicago, IL, Amer. Meteor. Soc.

Trapp et al, 2017.: Controls and inter-relationships between the convective components of simulated and observed midlatitude convection. DOE Atmospheric Systems Research Science Team Meeting, Tysons, VA.

\*Mallinson, H.M., S. D. Nicholls, A. E. Emory, 2017: Model Comparison of the 22-24 January 2016 Noreaster. 97th Annual AMS Conference, Seattle, WA, Amer. Meteor. Soc.

\*Dawson, D.T., J. Bozell, J. Buckingham, W. Downing, D. Chavas, H. Mallinson, M. Biggerstaff, S. Waugh, 2016: Overview of Purdues Mobile Disdrometer Operations During VORTEX-SE. 28th Conference on Severe Local Storms, Portland, OR, Amer. Meteor. Soc.

Murphy, T.A., T. Aydell, I. Bordelon, S. Kreller, H. Mallinson, A. Melancon, E. Murillo, 2016: An Overview of ULM Participation in the VORTEX-SE Field Program. 28th Conference on Severe Local Storms, Portland, OR, Amer. Meteor. Soc.

Mallinson, H.M., T. Murphy, 2016: Comparing Environmental Conditions of Convective Storms Producing Damaging Winds and Hail. ULM Student Research Symposium, Monroe, LA, ULM

\*Mallinson, H.M., C. Schumacher, F. Ahmed, 2016: Vertical Motions in Convective Clouds Over Darwin Australia. LSUS Student Scholars Forum, Shreveport, LA, LSUS

\*Mallinson, H.M., T. Murphy, 2016: Comparing Environmental Conditions of Convective Storms Producing Damaging Winds and Hail. LSUS Student Scholars Forum, Shreveport, LA, LSUS

Mallinson, H.M., C. Schumacher, F. Ahmed, 2016: Vertical Motions in Convective Clouds Over Darwin Australia. 15th Annual AMS Student Conference, New Orleans, LA, Amer. Meteor. Soc.

\*Mallinson, H.M., C. Schumacher, F. Ahmed, 2015: Vertical Motions in Convective Clouds Over Darwin Australia. AGU Fall Meeting 2015, San Francisco, CA, Amer. Geophys. Union

## PROFESSIONAL ACTIVITIES

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**Co-Chair In Training: AMS Student Conference**

**Planning Committee**

*21st Annual AMS Student Conference*

22-23 January 2022

**Co-Chair: Midwest Student Conference on Atmospheric Research**

*5th Annual Conference*

Fall 2021

**Organizer: 10th International Cloud Modeling Workshop**

*18th International Conference on Clouds and Precipitation*

July 2021

Convection in Strong Vertical Wind Shear: The 2 Aug COPE Case

<b>Member: DEI Committee</b> <i>Department of Atmospheric Sciences, University of Illinois at Urbana-Champaign</i>	Spring 2021-current
<b>Member: Board on Representation, Accessibility, Inclusion, and Diversity (BRAID)</b> <i>Formerly known as the Board on Women and Minorities American Meteorological Society</i> Women in Atmospheric Science Committee Accessibility Action and Planning Committee Member Survey Committee Environmental Justice Subcommittee for the 2022 AMS Annual Meeting Social Media and Website Committee	2021-2024
<b>Member: Academic Affairs COVID-19 Task Force</b> <i>Office of the Provost, University of Illinois at Urbana-Champaign</i>	2021-2022
<b>Session Chair: Local Severe Weather Discussion</b> <i>20th Annual AMS Student Conference</i>	10 January 2021
<b>Member: AMS Student Conference Planning Committee</b> <i>20th Annual AMS Student Conference</i>	09-10 January 2021
<b>Award Committee: Louis J. Battan Author's Award- Adult</b> <i>American Meteorological Society</i>	2021
<b>Board Member: Students Advising on Graduate Education (SAGE)</b> <i>The Graduate College, University of Illinois at Urbana-Champaign</i> Pandemic Impacts on Doctoral Education Committee Mentoring Graduate Students through Challenging Times Committee	2020-2021
<b>Exhibitor: Engineering Open House</b> <i>University of Illinois at Urbana-Champaign Canceled due to COVID-19</i> Developed interactive hail and weather forecasting exhibits	27-28 March 2020
<b>Volunteer: Board on Representation, Accessibility, Inclusion, and Diversity (BRAID)</b> <i>American Meteorological Society</i>	2020-2021
<b>Session Chair: Hindcasts, Nowcasts, and Forecasts: How Extreme Weather has Shaped the Enterprise</b> <i>19th Annual AMS Student Conference</i>	12 January 2020
<b>Panelist: Conversations with Professionals: Graduate Student Panel</b> <i>19th Annual AMS Student Conference</i>	11 January 2020
<b>Member: AMS Student Conference Planning Committee</b> <i>19th Annual AMS Student Conference</i>	11-12 January 2020

- Board Member: Students Advising on Graduate Education (SAGE)** 2019-2020  
*The Graduate College, University of Illinois at Urbana-Champaign*  
 Worked on the Student Performance Indicators Strategic Planning Group
- Member: AMS Student Conference Planning Committee** 5-6 January 2019  
*18th Annual AMS Student Conference*
- Co-founder: STEM Women and Advocates in Geoscience** 2018-2019  
*School of Earth, Society, and Environment,  
 University of Illinois at Urbana-Champaign*  
 Organization of graduate students and faculty dedicated to personal and professional development of women in geosciences
- Member: Midwest Student Conference on Atmospheric Research Planning Committee** 27-28 October 2018  
*2nd Annual Conference*
- Graduate Student Mentor** Fall 2018- current  
*Department of Atmospheric Sciences*
- President: Department of Atmospheric Sciences Student Organization** 2017-2018  
 Officers serve as a liaison between graduate students and faculty, provide input regarding graduate student affairs in faculty meetings, assist in creating annual graduate student survey, coordinate events to improve department morale
- Co-Chair: Midwest Student Conference on Atmospheric Research** 7-8 October 2017  
*1st Annual Conference*  
 Helped create inter-disciplinary conference that allows undergraduate and graduate students to present research and receive feedback
- Ambassador: NASA Space Public Outreach Team** 2016-2017  
 Spoke with elementary and middle school students about NASA research and mission operations
- President: ULM Chapter of the American Meteorological Society** 2016-2017  
*University of Louisiana-Monroe*  
 Won AMS Local Chapter of the Year Award  
 Coordinated northeast Louisiana flood relief efforts, professional development opportunities, guest speakers, fundraiser, and social events for members
- Secretary: ULM Chapter of the American Meteorological Society** 2015-2016  
*University of Louisiana-Monroe*  
 Took meeting minutes, communicated events to members

## AWARDS AND HONORS

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- Outstanding Poster Presentation** September 2020  
*4th Annual Midwest Student Conference on Atmospheric Research*
- Student Presentation Award- Oral Presentation** January 2020  
*30th Conference on Weather Analysis and Forecasting at the  
 100th American Meteorological Society Annual Meeting*

<b>Outstanding Senior in Atmospheric Sciences</b> <i>University of Louisiana-Monroe, College of Arts, Education, and Sciences</i>	May 2016
<b>First Place Undergraduate Poster, Physical Sciences</b> <i>Student Research Symposium, University of Louisiana-Monroe</i>	2016
<b>Harold Taft Scholarship Recipient</b> <i>Awarded through NBC5 and the Lone Star Emmy Educational Foundation</i>	2014

**PROFESSIONAL AFFILIATIONS**

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<b>American Meteorological Society</b>	2015-present
<b>American Geophysical Union</b>	2015-present
<b>Earth Science Women's Network</b>	2018-present