ANDREW C. WINTERS

Assistant Professor
Department of Atmospheric and Oceanic Sciences
University of Colorado Boulder
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INTERESTS

Synoptic-dynamic meteorology, mesoscale meteorology, the weather–climate interface, high-impact weather events, subseasonal-to-seasonal forecasting, scientific communication

EDUCATION

Ph.D. – Atmospheric and Oceanic Sciences **2015**
University of Wisconsin–Madison; Madison, WI
Advisor: Jonathan E. Martin
Dissertation: *The Role and Production of Polar/Subtropical Jet Superpositions in Two High-Impact Weather Events over North America*
Minor: Scientific Communication and Education, Delta Teaching Certificate

B.S. – Atmospheric and Oceanic Sciences with Honors in the Liberal Arts **2011**
University of Wisconsin–Madison; Madison, WI
Certificate: Mathematics

RESEARCH / PROFESSIONAL EXPERIENCE

Assistant Professor **Aug. 2019 – Present**
Department of Atmospheric and Oceanic Sciences
University of Colorado Boulder; Boulder, CO

[a]NSF–AGS Postdoctoral Research Fellow **Jul. 2017 – Jul. 2019**
Department of Atmospheric and Environmental Sciences
University at Albany, SUNY; Albany, NY
Advisors: Daniel Keyser and Lance F. Bosart

Postdoctoral Research Associate **Aug. 2015 – Jun. 2017**
Department of Atmospheric and Environmental Sciences
University at Albany, SUNY; Albany, NY
Advisors: Lance F. Bosart and Daniel Keyser

Graduate Research Assistant **Jun. 2011 – Aug. 2015**
Department of Atmospheric and Oceanic Sciences
University of Wisconsin–Madison; Madison, WI
Advisor: Jonathan E. Martin

Honors Senior Thesis Participant **Aug. 2010 – May 2011**
Department of Atmospheric and Oceanic Sciences

[a] A full list of acronyms with their corresponding definitions is provided on the last page of this CV.

University of Wisconsin–Madison; Madison, WI
Advisor: Jonathan E. Martin

National Weather Center – REU Program Participant **May 2010 – Aug. 2010**
School of Meteorology
University of Oklahoma; Norman, OK
Advisors: Bryan Smith and Corey Mead

Student Volunteer **May 2009 – Aug. 2009**
National Weather Service; Milwaukee/Sullivan, WI
Advisors: Rusty Kapela and Jeffrey Craven

AWARDED GRANTS ($2,370,945 Total || $2,198,945 to CU)

Department of Energy **Sep. 2023 – Aug. 2026**
Office of Biological and Environmental Research
Title: *Elevated Land Surface Heat Anomalies as Sources of U.S. Summer Hydroclimate Predictability: E3SMv2 Low-Level Jet and Precursor Event Sensitivities*
Lead PI: Craig Ferguson (UAlbany)
Institutional PI: **Andrew C. Winters**
Amount: $226,943 to CU

National Science Foundation **Sep. 2021 – Aug. 2024**
Division of Atmospheric and Geospace Sciences
Title: *Collaborative Research: Winter Precipitation Type Research Multi-Scale Experiment (WINTRE-MIX)*
PI: Katja Friedrich
Co-PI: **Andrew C. Winters**
Amount: $1,837,002 to CU ($769,768 co-managed by Friedrich/Winters, rest is sub to UIllinois)

National Aeronautics and Space Administration **Sep. 2021 – Aug. 2024**
Future Investigators in NASA Earth and Space Science and Technology (FINESST)
Title: *Constraining the Atmospheric Drivers of Thwaites Glacier Mass Balance and Implications for Future Sea Level*
PI: **Andrew C. Winters** (transferred from J. Lenaerts in Sept. 2022)
Future Investigator: Michelle Maclennan
Amount: $135,000 to CU ($95,553 managed by Winters after transfer)

[b]National Science Foundation **Jul. 2017 – Jun. 2020**
Division of Atmospheric and Geospace Sciences Postdoctoral Research Fellowship
Title: *Antecedent Remote and Local Synoptic Environments Most Conducive to North American Polar/Subtropical Jet Superpositions*
PI: **Andrew C. Winters**
Amount: $172,000 to Winters

[b] A. C. Winters was the PI at UAlbany before coming to CU, and no funds were sent to CU after A. C. Winters moved to CU in 2019.

PENDING GRANTS ($2,318,397 to CU)

National Science Foundation **est. Jun. 2024 – May 2027**
Division of Atmospheric and Geospace Sciences
Title: *Large-Scale Circulation Regimes Conducive to Extreme Temperatures and Winds along the Colorado Front Range*
PI: **Andrew C. Winters**
Co-PIs: John Cassano and Julie Lundquist (CU)
Requested Amount: $1,325,690 to CU

National Science Foundation **est. Aug. 2024 – Jul. 2029**
Division of Atmospheric and Geospace Sciences
Title: *CAREER: Global Characteristics and Future Changes in the Dynamics of Polar–Subtropical Jet Superposition Events*
PI: **Andrew C. Winters**
Requested Amount: $992,707 to CU

TEACHING EXPERIENCE

University of Colorado Boulder

Courses Developed
Course: ATOC 4890/5890 – Synoptic-Dynamic Meteorology **Fall 2020**

Instructor of Record
Course: ATOC 5050 – Intro. to Atm. Thermodynamics and Dynamics **Fall 2021, 2023**
ATOC 1050 – Weather and the Atmosphere **Spring 2021, 2023**
ATOC 4890/5890 – Synoptic-Dynamic Meteorology **Fall 2020, 2022**
ATOC 4700 – Weather Analysis and Forecasting **Spring 2020, 2022, 2024**
ATOC 6020 – Special Topics in Atm. & Ocn. Sci. **Spring 2022**

Informal Educational Activities
Leader – ATOC Weekly Weather Discussion **2019 – Present**
Local Manager – WxChallenge Collegiate Forecast Competition **2019 – Present**

University at Albany, SUNY

Guest Lecturer
Course: ATM 317 – Dynamic Meteorology II **Spring 2018; 2019**
ATM 210 – Atm. Structure, Thermodynamics, and Circulation **Fall 2018**
ATM 631 – Mesoscale Dynamics **Spring 2018**
ATM 621 – Structure and Dynamics of Extratropical Cyclones **Spring 2017**
ATM 110 – Weather and Climate Issues **Fall 2016**
ATM 409/509 – Atmospheric Precipitation Processes **Fall 2016**
ATM 400 – Synoptic Meteorology I **Fall 2016**
ATM 619 – The Cyclone Workshop Seminar **Spring 2016**

University of Wisconsin – Madison

Certificate – Delta Program for Teaching and Learning **2015**
Confers recognition of teaching experience, awareness of effective ways to promote successful learning, and utilizing/performing research to improve learning.

Teaching Assistant

Course: AOS 452 – The Frontal Cyclone	**Fall 2013, 2014**
AOS 101/100 – Introduction to Weather and Climate	**Spring 2012, 2013**

Peer Mentor

Course: Bradley Roundtable	**Fall 2008, Spring 2009**

STUDENT ADVISING

University of Colorado Boulder

Graduate Students

Zachary Michael, *Ph.D candidate, ATOC*	**2023 – Present (est. 2027)**
[c]Michelle Maclennan, *Ph.D candidate, ATOC*	**2022 – Present (est. 2024)**
McKenzie Larson, *Ph.D candidate, ATOC*	**2022 – Present (est. 2027)**
Clairisse Reiher, *Ph.D candidate, ATOC*	**2021 – Present (est. 2026)**
Rebecca Baiman, *Ph.D candidate, ATOC*	**2020 – Present (est. 2025)**

Undergraduate Students

Christian McGinty, *Undergraduate Research Asst.*	**2023**
Seryna Robles, *ATOC REU Student, Texas A&M*	**2023**
Sierra Brown, *CU SMART Student, Virginia Tech*	**2023**
Eva Ramm, *ATOC Internship*	**2023**
Benjamin Danielski, *Independent Study*	**2023**
Brody Kuehl, *Independent Study*	**2023**
Erica Bortfeldt, *Independent Study*	**2023**
Rebecca Torres, *ATOC REU Student, UTRGV*	**2022**
Alexandre Collin, *Independent Study*	**2022**
McKenzie Larson, *Honors Thesis (summa cum laude)*	**2021 – 2022**
Gillian Grasso, *Independent Study / UROP*	**2020 – 2022**
Laura Smith, *ATOC REU Student, MSU Denver*	**2021**
Elyse Hawkins, *Independent Study / UROP*	**2019 – 2020**
David Rosencrans, *Independent Study*	**2019 – 2020**

High School Students

Clayton Malott, *Volunteer Research Asst.*	**2022**

Student Committee Membership

Sydney Kramer, Ph.D., *University of Colorado Boulder*	**2023 – Present**
Ethan Murray, Ph.D., *University of Colorado Boulder*	**2023 – Present**
Zhixing Xie, Ph.D., *University of Colorado Boulder*	**2023 – Present**
Joey Taylor, Ph.D., *University of Colorado Boulder*	**2023 – Present**
Nathan Agarwal, Ph.D., *University of Colorado Boulder*	**2023 – Present**
Andrew Kumler, Ph.D., *University of Colorado Boulder*	**2022 – Present**
Mikell Warms, Ph.D., *University of Colorado Boulder*	**2022 – Present**
Timothy Higgins, Ph.D., *University of Colorado Boulder*	**2022 – Present**
David Rosencrans, Ph.D., *University of Colorado Boulder*	**2022 – Present**
Tyler Leicht, Ph.D., *University at Albany, SUNY*	**2021 – Present**
Rory Laiho, Ph.D., *University of Colorado Boulder*	**2020 – Present**

[c] M. Maclennan transferred into the group following the departure of J. Lenaerts from CU in Sept. 2022.

Brennan Dettmann, M.S., *University of Colorado Boulder* **2023**
Sean Butters, B.A., *University of Colorado Boulder (Honors Thesis)* **2022**
Leann Anthony, M.S., *Plymouth State University* **2020**

Student Awards and Fellowships

Clairisse Reiher, Outstanding Student Presentation (*32nd WAF/28th NWP Conf.*) **2023**
Zachary Michael, *NSF Graduate Research Fellowship* **2023**
Rebecca Baiman, *Best Oral Presentation (36th Conf. on Clim. Var. & Change)* **2023**
Michelle Maclennan, *Best Student Presentation (WAIS Workshop)* **2022**
McKenzie Larson, *DOE Computer Science Graduate Fellowship (Accepted)* **2022**
McKenzie Larson, *NSF Graduate Research Fellowship (Declined)* **2022**
McKenzie Larson, *AMS Graduate Fellowship (Accepted)* **2022**
Clairisse Reiher, *CU Boulder Devaney Fellowship* **2021**
Rebecca Baiman, *Best "Ice Sheet" Presentation (ATOC Poster Conference)* **2021**

University at Albany, SUNY

Graduate Students

Eli Turasky, M.S. **2018 – 2019**
Co-advised with Lance F. Bosart and Daniel Keyser
Current: Meteorological Developer, Everstream Analytics

Undergraduate Students

Jessica Blair, Honors Senior Thesis **2018 – 2019**
Co-advised with Ross A. Lazear
Current: Research Associate, NWS Warning Decision Training Branch

PROFESSIONAL SERVICE

National / International

Editor, *Monthly Weather Review* **2024 – Present**
Co-Organizer, Cyclone Workshop **2024**
Participant, NSF "Mind the Gap" & NSF/EAGER/COMET Meeting **2023**
Co-Organizer, 2nd Antarctic Atmospheric River Workshop **2023**
Participant, NOAA–Hazardous Weather Testbed Spring Experiment **2017, 2021, 2022**
Participant, Early Career Geoscience Faculty Workshop **2021**
Member, AMS Weather and Forecasting STAC Committee **2020 – Present**
Associate Editor, *Monthly Weather Review* **2018 – 2023**
Member, AMS WAF/NWP Conference Planning Committee **2018 – 2022**
Member, Cyclone Workshop Science Committee **2016 – 2017**
Participant, AGU Congressional Visit Day **2016**
Reviewer **2016 – Present**

Journals: *Journal of Atmospheric Science; Monthly Weather Review; Journal of Applied Meteorology and Climatology; Quarterly Journal of the Royal Meteorological Society; Climate Research; Weather and Forecasting; Journal of Geophysical Research: Atmospheres; Weather, Climate, and Society; Journal of Climate; npj Climate and Atmospheric Science; Weather and Climate Dynamics; Frontiers in Earth Science; Bulletin of the American Meteorological Society; Geophysical Research Letters*

Funding Agencies: NOAA, NSF, NASA, Swiss National Science Foundation, Israel National Science Foundation

Judge, AMS/AGU Student Poster Competitions **2016 – 2023**
Conference Session Chair **2015 – 2023**
Cyclone Workshop; AMS Annual Meeting, AMS WAF/NWP Conference

University of Colorado Boulder

Faculty Advisor, AMS Student Chapter **2022 – Present**
Member/Chair, ATOC Colloquium Committee **2019 – Present**
Reviewer, ATOC Graduate Admissions Committee **2019 – Present**
Member, Personnel Committee for ATOC Assistant Teaching Professor **2022**
Participant, Introductory Leadership Workshop, LEAP program **2022**
Member, CU Research Computing and CRDDS Focus Group **2021**
Member, ATOC Curriculum Committee **2020 – 2022**
Member/Chair, ESSS Poster Conference Planning Committee **2019 – 2022**
Member, ATOC Chair Search Committee **2020**

University at Albany, SUNY

Co-Chair, DAES/ASRC Departmental Seminar Series **2018 – 2019**
Facilitator, Cyclone Research Group **2016 – 2019**

University of Wisconsin–Madison

Local Manager, WxChallenge Collegiate Forecasting Competition **2013 – 2015**
Student–Faculty Liaison, UW–AOS Graduate Student Association **2013 – 2014**
Recruitment Committee Co-Chair, UW–AOS Graduate Student Association **2012 – 2014**
Ombudsman, UW–AOS Graduate Student Association **2012 – 2013**
Senior Officer / President, UW–AOS Student Chapter of the AMS **2010 – 2011**

OUTREACH EXPERIENCE

Speaker **Nov. 2023**
Boulder, CO
Led an NCAR workshop on writing research statements for faculty positions.

Westminster 7:10 Rotary Club **Aug. 2021**
Westminster, CO
Presented on the status of western U.S. drought.

Panelist **May 2021**
Boulder, CO
Served on a panel focused on applying and interviewing for academic faculty positions.

Local School Visits **Mar. 2014 – Jun. 2015**
Madison, WI
Presented on weather systems at 6 area middle schools and high schools.

Local Science Festivals **Apr. 2012 – Apr. 2015**
Madison, WI
Presented on the dynamics of weather systems at 4 different science festivals.

CIMSS Student Summer Workshop **Jun. 2013; 2014; 2015**
Madison, WI
Presented a weather briefing for the annual student workshop.

CIMSS Climate Digest **Jun. 2014 – Mar. 2015**
Madison, WI
Provided narration for climate summary videos produced as part of the EarthNow project.

Aldo Leopold Nature Center **Oct. 2013; 2014**
Monona, WI
Developed weather-related activities for visitors to the Aldo Leopold Nature Center.

Madison Middle School Science Symposium **Dec. 2012 – Apr. 2013**
Madison, WI
Mentored three 6th grade students on a science project for the annual science symposium.

INTERVIEWS

USA Today **2023**
National
"How Deion Sanders thrived in first Colorado winter despites concerns about cold, snow", B. Schrotenboer

CU Boulder Today **2022**
Boulder, CO
"It's been unusually windy this spring. Here's why you should care", K. Simpkins

KGNU Community Radio **2021**
Boulder, CO
"The science behind windstorms", S. Young

The Whit Online, Rowan University **2020**
Glassboro, NJ
"National researchers explain South Jersey's mild winter", C. Connors

Daily Cardinal, UW–Madison **2013**
Madison, WI
"Discovery of superposed jets may lead to better forecasting", Z. Zhang

UW–Madison Communications **2011**
Madison, WI
"Global winds could explain record rains, tornadoes", D. Tenenbaum

AWARDS / HONORS

ATOC Service Award **2023**
Recognized for developing weekly weather discussions

ATOC Service Award **2022**
Recognized for contributions to the department colloquium and ATOC REU program

American Meteorological Society Editor's Award **2022**
Monthly Weather Review

Best Graduate Student Poster **2015**
5th Annual UW–Madison Atmospheric and Oceanic Sciences Poster Session

UW–Madison Campus-Wide Teaching Assistant Award **2014**

Innovation in Instruction

Honorable Mention Graduate Student Poster **2014**
4th Annual UW–Madison Atmospheric and Oceanic Sciences Poster Session

Wahl Award for Excellence as a Teaching Assistant **2013**
UW–Madison Department of Atmospheric and Oceanic Sciences

Honorable Mention **2012; 2013**
NSF Graduate Research Fellowship Program

Inductee **2011**
UW–Madison Alpha Chapter of Phi Beta Kappa

Horn Award for Excellence in Overall Performance as an Undergraduate **2010**
UW–Madison Department of Atmospheric and Oceanic Sciences

George Enfield Frazer Scholarship **2010**
UW–Madison College of Letters and Sciences

Dean's List (8 semesters) **2007 – 2011**
UW–Madison College of Letters and Sciences

Academic Excellence Scholar **2007 – 2011**
Wisconsin Higher Education Aids Board

REFEREED PUBLICATIONS

Publications in Preparation (2 total; 0 led by Winters as first-author; 1 led by student advisees):

[1] – Winters as primary advisor for student/postdoc || [2] – Winters as secondary advisor or committee member for student/postdoc

[26] [2]**Lojko, A., A. C. Winters,** A. Oertel, C. Jablonowski, and A. Payne: On the amplification of the North Atlantic jet stream by synoptic-scale bands of absolute negative potential vorticity. In preparation.

[25] Morales, A., M. J. Molina, B. Moore, W. Rudisill, [1]**R. Baiman**, **A. C. Winters**, A. Flores, M. Hughes, and K. Mahoney: Connecting large-scale weather patterns to simulated precipitation in the East River intermountain valley of Colorado. In preparation.

Publications in Review (6 total; 1 led by Winters as first-author; 4 led by student advisees):

[1] – Winters as primary advisor for student/postdoc || [2] – Winters as secondary advisor or committee member for student/postdoc

[24] [2]**Laiho, R.**, K. Friedrich, and **A. C. Winters**, 2024: Synoptic-scale meteorological patterns associated with heavy rainfall in the Minnesota region. *J. Appl. Meteor. Climatology*, **[in review]**

[23] Winters, A. C., N. P. Bassill, J. R. Gyakum, J. R. Minder, 2024: Regime-dependent characteristics and predictability of cold season precipitation events in the St. Lawrence River Valley. *Wea. Forecasting*, **[in review]**

[22] [2]**Higgins, T. B.,** A. Subramanian, W. Chapman, D. Lavers, and **A. C. Winters**, 2024: Subseasonal potential predictability of horizontal water vapor transport and precipitation extremes in the North Pacific. *Wea. Forecasting*, **[in revision]**

[21] Wille, J. D., B. Pohl, V. Favier, **A. C. Winters**, [1]**R. Baiman**, S. Cavallo, C. L. dos Santos, K. Clem, D. G. Udy, T. R. Vance, I. Gorodetskaya, F. Codron, and A. Berchet, 2024: Examining atmospheric river life cycles in east Antarctica. *J. Geophys. Res. Atmos.,* **[in revision]**

[20] [1]**Baiman, R. L., A. C. Winters**, B. Pohl, V. Favier, J. D. Wille, and K. R. Clem, 2024: Discriminators of Antarctic atmospheric river environments. *Nature Communications Earth and Environment,* **[revised version submitted]**

[19] [1]**Reiher, C. A.** and **A. C. Winters**, 2024: Discriminating factors that favor the development of high-impact weather events in association with polar–subtropical jet superpositions. *Mon. Wea. Rev.* **[revised version submitted]**

Publications at CU (11 total; 6 led by Winters as first-author; 4 led by student advisees):

[1] – Winters as primary advisor for student/postdoc || [2] – Winters as secondary advisor or committee member for student/postdoc

** – Manuscript selected as a highlight paper by journal

2024: [18] [1]**Larson, M. L., A. C. Winters,** and P. T. Schlatter, 2024: Downslope wind verification of the National Blend of Models v4.0 across the northern Front Range of Colorado during the 2020/2021 cool season. *J. Operational Meteorology*, **[in press]**

2023: [17] Minder, J. R., N. Bassill, F. Fabry, J. R. French, K. Friedrich, I. Gultepe, J. Gyakum, D. E. Kingsmill, K. Kosiba, M. Lachapelle, D. Michelson, L. Nichman, C. Nguyen, J. M. Thériault, **A. C. Winters,** M. Wolde, J. Wurman, 2023: P-type processes and predictability: The Winter Precipitation Type Research Multiscale Experiment (WINTRE-MIX). *Bull. Amer. Meteor. Soc.*, **104**, E1469–E1492, https://doi.org/10.1175/BAMS-D-22-0095.1.

[16] [1]**Baiman, R. L.**, **A. C. Winters**, J. T. M. Lenaerts, C. A. Shields, 2023: Synoptic drivers of atmospheric river induced precipitation near Dronning Maud Land, Antarctica. *J. Geophys. Res. Atmos.*, **128**, e2022JD037859, https://doi.org/10.1029/2022JD037859.

[15] **[1]**Maclennan, M. L.**, J. T. M. Lenaerts, C. A. Shields, A. O. Hoffman, N. Wever, M. Thompson-Munson, **A. C. Winters,** E. C. Pettit, T. A. Scambos, and J. D. Wille, 2023: Climatology and surface impacts of atmospheric rivers on West Antarctica. *The Cryosphere*, **17**, 865–881, https://doi.org/10.5194/tc-17-865-2023.

[14] [2]**Laiho, R.**, K. Friedrich, and **A. C. Winters**, 2023: Characteristics of warm season heavy rainfall in Minnesota. *Wea. Forecasting*, **38**, 163–177, https://doi.org/10.1175/WAF-D-21-0186.1.

2022: [13] Winters, A. C. and H. E. Attard, 2022: North Pacific and North Atlantic jet covariability and its relationship to cool season temperature and precipitation extremes. *Wea. Forecasting*, **37**, 1581–1600, https://doi.org/10.1175/WAF-D-21-0203.1.

[12] Winters, A. C. and C. L. Walker, 2022: A jet-centered framework for investigating High Plains winter storm severity, *J. Appl. Meteor. Climatology*, **61,** 709–728, https://doi.org/10.1175/JAMC-D-21-0211.1.

2021: [11] Winters, A. C., 2021b: Subseasonal prediction of the state and evolution of the North Pacific jet stream, *J. Geophys. Res. Atmos.*, **126**, e2021JD035094, https://doi.org/10.1029/2021JD035094.

[10] Winters, A. C., 2021a: Kinematic processes contributing to the intensification of anomalously strong North Atlantic jets. *Quart. J. Roy. Meteor. Soc.*, **147,** 2506–2532, https://doi.org/10.1002/qj.4037.

2020: [09] Winters, A. C., D. Keyser, and L. F. Bosart, 2020b: Composite vertical-motion patterns near North American polar–subtropical jet superposition events. *Mon. Wea. Rev.*, **148**, 4565–4585, https://doi.org/10.1175/MWR-D-20-0140.1.

[08] Winters, A. C., D. Keyser, L. F. Bosart, and J. E. Martin, 2020a: Composite synoptic-scale environments conducive to North American polar–subtropical jet

superposition events. *Mon. Wea. Rev.*, **148**, 1987–2008, https://doi.org/10.1175/MWR-D-19-0353.1.

Publications prior to CU (7 total; 5 led by Winters as first-author):

[07] Winters, A. C., L. F. Bosart, and D. Keyser, 2019: Antecedent North Pacific jet regimes conducive to the development of continental U.S. extreme temperature events during the cool season. *Wea. Forecasting*, **34,** 393–414, https://doi.org/10.1175/WAF-D-18-0168.1.

[06] Winters, A. C., D. Keyser, and L. F. Bosart, 2019: The development of the North Pacific Jet phase diagram as an objective tool to monitor the state and forecast skill of the upper-tropospheric flow pattern. *Wea. Forecasting,* **34,** 199–219, https://doi.org/10.1175/WAF-D-18-0106.1.

[05] Schultz, D. M., L. F. Bosart, B. A. Colle, H. C. Davies, C. Dearden, D. Keyser, O. Martius, P. J. Roebber, W. J. Steenburgh, H. Volkert, and **A. C. Winters**, 2019: Extratropical cyclones: A century of research on meteorology's centerpiece. *A Century of Progress in Atmospheric and Related Sciences: Celebrating the American Meteorological Society Centennial*, G. McFarquhar, Ed., Amer. Meteor. Soc., 16.1–16.56, https://doi.org/10.1175/AMSMONOGRAPHS-D-18-0015.1.

[04] Winters, A. C., and J. E. Martin, 2017: Diagnosis of a North American polar–subtropical jet superposition employing piecewise potential vorticity inversion. *Mon. Wea. Rev.*, **145**, 1853–1873, https://doi.org/10.1175/MWR-D-16-0262.1.

[03] Winters, A. C., and J. E. Martin, 2016: Synoptic and mesoscale processes supporting vertical superposition of the polar and subtropical jets in two contrasting cases. *Quart. J. Roy. Meteor. Soc.*, **142,** 1133–1149, https://doi.org/10.1002/qj.2718.

[02] Winters, A. C., and J. E. Martin, 2014: The role of a polar/subtropical jet superposition in the May 2010 Nashville Flood. *Wea. Forecasting*, **29**, 954–974, https://doi.org/10.1175/WAF-D-13-00124.1.

[01] Smith, B. T., T. E. Castellanos, **A. C. Winters**, C. M. Mead, A. R. Dean, and R. L. Thompson, 2013: Measured severe convective wind climatology and associated convective modes of thunderstorms in the contiguous United States, 2003-09. *Wea. Forecasting*, **28,** 229–236, https://doi.org/10.1175/WAF-D-12-00096.1.

NON-REFEREED PUBLIC DATASETS

[1] – Winters as primary advisor for student/postdoc || [2] – Winters as secondary advisor or committee member for student/postdoc

[07] Winters, A. C., J. R. Minder, B. Han, J. M. Theriault, M. Lachapelle, J. Gyakum, J. Wray, and [1]**R. Baiman**, 2022: WINTRE-MIX field collected sounding data. Version 4.0 [Data set]. UCAR/NCAR-Earth Observing Laboratory, https://doi.org/10.26023/DN6Q-VKKE-V002.

[06] Lachapelle, M., B. Han, J. R. Minder, **A. C. Winters**, [1]**R. Baiman**, J. M. Theriault, J. Gyakum, and J. Wray, 2022: WINTRE-MIX: Manual hydrometeor photographs dataset. Version 1.0 [Data set]. UCAR/NCAR-Earth Observing Laboratory, https://doi.org/10.26023/D0SE-720B-K60J.

[05] Han, B., J. R. Minder, **A. C. Winters**, [1]**R. Baiman**, J. M. Theriault, M. Lachapelle, J. Gyakum, J. Wray, 2022: WINTRE-MIX: Manual hydrometeor observation reports. Version 1.0 [Data set]. UCAR/NCAR-Earth Observing Laboratory, https://doi.org/10.26023/68S9-0EBB-5A0D.

[04] Winters, A. C., 2022: Subseasonal forecasts of the state and evolution of the North Pacific jet stream [Data set]. University of Colorado Boulder, https://doi.org/10.25810/787V-6N17.

[03] Winters, A. C., 2021: Anomalously-strong jet streaks in the NCEP Climate Forecast System Reanalysis over North America and the North Atlantic during 1979–2018 [Data set]. University of Colorado Boulder, https://doi.org/10.25810/55W4-4A03.

[02] Winters, A. C., 2021: The state of the North Pacific jet and North Atlantic jet in the context of their two leading modes of variability [Data set]. University of Colorado Boulder, https://doi.org/10.25810/CKN0-GP39.

[01] Winters, A. C., 2020: North American jet superposition events within the NCEP Climate Forecast System Reanalysis Dataset during November–March 1979–2010 [Data set]. University of Colorado Boulder, https://doi.org/10.25810/tscc-2k05.

INVITED SEMINARS (11 while at CU)

[1] – Winters as primary advisor for student or postdoc || [2] – Winters as secondary advisor or committee member for student or postdoc

[25] Winters, A. C., 2024: Regime-dependent predictability of cold season precipitation events in the St. Lawrence River Valley. *University of Nebraska Lincoln Stout Lecture Series*, Lincoln, NE, 5 April 2024 (upcoming).

[24] Winters, A. C., 2024: Current and future perspectives on North American polar-subtropical jet superposition events. *Daniel Keyser Symposium: A Celebration of Synoptic-Dynamic Meteorology, Past, Present, and Future,* Baltimore, MD, American Meteorological Society, 29 January 2024 (upcoming).

[23] Winters, A. C., 2023: Regime-dependent predictability of cold season precipitation events in the St. Lawrence River Valley. *University of Michigan Department of Climate and Space Sciences and Engineering*, Ann Arbor, MI, 2 November 2023.

[22] Winters, A. C. and **[1]C. A. Reiher**, 2023: Linkages between the structure and evolution of the upper-tropospheric jet streams and high-impact weather events. *Commodity Weather Group*, Virtual, 26 September 2023.

[21] Winters, A. C., 2022: Subseasonal prediction of the state and evolution of the North Pacific jet stream. *NOAA Physical Sciences Laboratory*, Boulder, CO, 8 November 2022.

[20] Winters, A. C., 2022: Subseasonal prediction of the state and evolution of the North Pacific jet stream. *NCAR ASP Summer Colloquium Workshop*, Boulder, CO, 14 July 2022.

[19] Winters, A. C., 2021: The development of a North Pacific jet phase diagram to monitor the upper-tropospheric flow pattern. *NCEP Weather Prediction Center*, Virtual, 19 October 2021.

[18] Winters, A. C., 2020: Composite synoptic-scale environments conducive to North American polar–subtropical jet superposition events. *North Carolina State University Department of Marine, Earth, and Atmospheric Sciences*, Virtual, 26 October 2020.

[17] Winters, A. C., 2020: The development of a North Pacific jet phase diagram to monitor the upper-tropospheric flow pattern. *Commodity Weather Group*, Virtual, 20 October 2020.

[16] Winters, A. C., 2020: Composite synoptic-scale environments conducive to North American polar–subtropical jet superposition events. *National Center for Atmospheric Research Mesoscale and Microscale Meteorology Laboratory*, Boulder, CO, 5 March 2020.

[15] Winters, A. C., 2019: Demystifying the tenure-track faculty search: Interviewing and negotiating. *National Center for Atmospheric Research*, Boulder, CO, 26 September 2019.

[14] Winters, A. C., 2019: Antecedent synoptic environments most conducive to North American polar/subtropical jet superpositions. *Stony Brook University School of Marine and Atmospheric Sciences*. Stony Brook, NY, 10 April 2019.

[13] Winters, A. C., 2019: Antecedent synoptic environments conducive to North American polar/subtropical jet superposition events. *Naval Postgraduate School Department of Meteorology*. Monterey, CA, 13 March 2019.

[12] Winters, A. C., 2019: Antecedent synoptic environments conducive to North American polar/subtropical jet superposition events. *University of Colorado Boulder Department of Atmospheric and Oceanic Sciences*. Boulder, CO, 4 March 2019.

[11] Winters, A. C., 2019: Antecedent environments conducive to North American polar/subtropical jet superposition events. *Cornell University Department of Earth and Atmospheric Sciences*. Ithaca, NY, 27 February 2019.

[10] Winters, A. C., 2018: Antecedent synoptic environments most conducive to North American polar/subtropical jet superpositions. *San Jose State Department of Meteorology and Climate Science*. San Jose, CA, 5 December 2018.

[09] Winters, A. C., 2018: Antecedent synoptic environments most conducive to North American polar/subtropical jet superpositions. *Georgia Tech Department of Earth and Atmospheric Sciences*. Atlanta, GA, 15 November 2018.

[08] Winters, A. C., D. Keyser, and L. F. Bosart, 2018: Antecedent synoptic environments most conducive to North American polar/subtropical jet superpositions. *EGU General Assembly.* Vienna, Austria, European Geosciences Union, 11 April 2018.

[07] Winters, A. C., 2018: Antecedent synoptic environments most conducive to North American polar/subtropical jet superpositions. *Penn State Department of Meteorology and Atmospheric Science*, University Park, PA, 28 February 2018.

[06] Winters, A. C., 2017: The development of the North Pacific Jet phase diagram as a tool to characterize the state of the upper-tropospheric flow pattern. *University at Albany, SUNY*, Albany, NY, 20 November 2017.

[05] Winters, A. C., 2017: The development of the North Pacific Jet phase diagram as a tool to characterize the upper-tropospheric flow pattern. *Weather Prediction Center*, College Park, MD, 14 July 2017.

[04] Winters, A. C., 2017: Weather regime-dependent predictability: Antecedent environments conducive to the production of extreme temperature events over the United States, *University of Washington Department of Atmospheric Sciences,* Seattle, WA, 7 April 2017.

[03] Winters, A. C., 2017: Antecedent environments conducive to the production of extreme temperature events over the United States. *University of Oklahoma School of Meteorology,* Norman, OK, 2 March 2017.

[02] Winters, A. C., L. F. Bosart, and D. Keyser, 2016: An investigation of the skill of GFS/GEFS forecasts for two recent extreme weather events. *EMC Global Modeling Branch,* College Park, MD, 18 February 2016.

[01] Winters, A. C., 2014: The Northwest Passage and climate change. *Madison Literary Club*, Madison, WI, 8 December 2014.

NON-REFEREED CONFERENCE PRESENTATIONS WHILE AT CU

[1] – Winters as primary advisor for student or postdoc || [2] – Winters as secondary advisor or committee member for student or postdoc

[44] [1]Maclennan, M. L., A. C. Winters, C. A. Shields, J. Wille, L. Barthelemy, F. Codron, and V. Favier, 2023: Antarctic atmospheric rivers in the present and future climates. *AGU*

Fall Meeting, San Francisco, CA, GC43F-1364 (Poster)

[43] [1]**Baiman, R., A. C. Winters**, B. Pohl, V. Favier, J. Wille, and K. Clem, 2023: Discriminators of Antarctic atmospheric river environments. *AGU Fall Meeting*, San Francisco, CA, American Geophysical Union, A51N-2135 (Poster)

[42] [2]**Lojko, A.**, **A. C. Winters,** M. Chasteen, M. Wong, A. Prein, A. Oertel, B. Z. Ribeiro, C. Jablonowski, and A. E. Payne, 2023: Negative potential vorticity can explain how convective updrafts remotely amplify the North Atlantic jet stream. *AGU Fall Meeting*, San Francisco, CA, American Geophysical Union, A33R-2789 (Poster)

[41] Minder, J. R., N. P. Bassill, F. Fabry, J. R. French, K. Friedrich, I. Gultepe, J. Gyakum, K. A. Kosiba, M. Lachapelle, D. Michelson, L. Nichman, C. Nguyen, J. M. Thériault, **A. C. Winters**, M. Wolde, and J. Wurman, 2023: P-type processes and predictability: A case study from the Winter Precipitation Type Research Multiscale Experiment (WINTRE-MIX). *32nd Conference on Weather Analysis and Forecasting*, Madison, WI, American Meteorological Society, J7.6. (Talk)

[40] Winters, A. C., N. P. Bassill, J. R. Gyakum, and J. R. Minder, 2023: Regime-dependent predictability of cold season precipitation events in the St. Lawrence River Valley. *32nd Conference on Weather Analysis and Forecasting,* Madison, WI, American Meteorological Society, J3.4. (Talk)

[39] [1]**Reiher, C. A.** and **A. C. Winters**, 2023: Synoptic-scale predictability of two near-freezing precipitation events during the WINTRE-MIX field campaign. *28th Conference on Numerical Weather Prediction,* Madison, WI, American Meteorological Society. (Poster)

[38] [2]**Lojko, A**., **A. C. Winters**, C. Jablonowski, and A. Payne, 2023: The role of North American convective storms on jet stream dynamics: A negative potential vorticity perspective. *20th Conference on Mesoscale Processes,* Madison, WI, American Meteorological Society. (Poster)

[37] [1]**Maclennan, M. L.,** A. C. Winters, C. A. Shields, J. D. Wille, R. Thaker, L. Barthelemy, F. Codron, V. Favier, and B. Markle, 2023: Antarctic atmospheric rivers in past and future climates. *2nd Antarctic Atmospheric River Workshop*, Boulder, CO, 28 June 2023. (Talk)

[36] [1]**Baiman, R. L.,** A. C. Winters, B. Pohl, V. Favier, J. Wille, and K. Clem, 2023: Discriminators of Antarctic atmospheric river environments. *2nd Antarctic Atmospheric River Workshop*, Boulder, CO, 27 June 2023. (Talk)

[35] [1]**Maclennan, M. L.**, **A. C. Winters**, C. Shields, J. Wille, R. Baiman, L. Barthelemy, V. Favier, 2023: Antarctic atmospheric rivers in the past and future climates. *EGU General Assembly,* Vienna, Austria, European Geosciences Union, CR7.3. (Talk)

[34] [2]**Lojko, A., A. C. Winters**, C. Jablonowski, and A. Payne, 2023: The role of North American convective storms on jet stream dynamics: A negative potential vorticity perspective. *EGU General Assembly,* Vienna, Austria, European Geosciences Union, AS1.17. (Poster)

[33] Winters, A. C. and H. E. Attard, 2023: North Pacific and North Atlantic jet covariability and its relationship to cool season temperature and precipitation extremes. *36th Conference on Climate Variability and Change*, Denver, CO, American Meteorological Society, 6B.4. (Talk)

[32] Friedrich, K., J. R. Minder, J. Wurman, K. A. Kosiba, J. R. French, D. E. Kingsmill, **A. C. Winters**, N. P. Bassill, J. M. Thériault, and J. Gyakum, 2023: Variability of mesoscale cloud and precipitation structures during near-freezing surface conditions using ground-based radar observations from WINTRE-MIX. *Third Symposium on Mesoscale Processes,* Denver, CO, American Meteorological Society. (Poster)

[31] [2]**Laiho, J. R.,** K. Friedrich, and **A. C. Winters**, 2023: Self-organizing map analysis of mesoscale conditions associated with heavy rainfall in Minnesota. *Third Symposium on Mesoscale Processes*, Denver, CO, American Meteorological Society. (Poster)

[30] [1]**Larson, M.**, C. A. Shields, G. A. Meehl, **A. C. Winters**, A. Morales, and A. C. Subramanian, 2023: Present and future climate sensitivity studies of downslope winds in Boulder, Colorado. *Third Symposium on Mesoscale Processes*, Denver, CO, American Meteorological Society, 8.4. (Talk)

[29] Minder, J. R., N. P. Bassill, F. Fabry, J. R. French, K. Friedrich, I. Gultepe, J. Gyakum, D. E. Kingsmill, K. A. Kosiba, M. Lachapelle, D. Michelson, L. Nichman, C. Nguyen, J. M. Thériault, **A. C. Winters**, M. Wolde, and J. Wurman, 2023: P-type processes and predictability: The Winter Precipitation Type Research Multiscale Experiment (WINTRE-MIX). *Third Symposium on Mesoscale Processes*, Denver, CO, American Meteorological Society, 4.1. (Talk)

[28] Mazza, E., S. S. Chen, B. W. Kerns, and **A. C. Winters**, 2023: Multiscale interactions of the MJO-jet stream-atmospheric rivers and their influence on western US rainfall. *11th Symposium on the Madden-Julian Oscillation and Sub-Seasonal Monsoon Variability*, Denver, CO, American Meteorological Society. (Poster)

[27] Girouard, M., M. Lachapelle, J. M. Thériault, I. Gultepe, J. R. Minder, and **A. C. Winters**, 2023: Microphysical and mesoscale processes for an ice pellet and freezing rain storm during the 2022 WINTRE-MIX field campaign in southern Quebec, Canada. *Third Symposium on Mesoscale Processes*, Denver, CO, American Meteorological Society. (Poster)

[26] [2]**Higgins, T.**, A. C. Subramanian, W. E. Chapman, D. Lavers, and **A. C. Winters**, 2023: Assessing the potential predictability of North Pacific winter IVT and precipitation extremes in subseasonal to seasonal forecasts. *37th Conference on Hydrology*, Denver, CO, American Meteorological Society. (Poster)

[25] [1]**Reiher, C. A.** and **A. C. Winters**, 2023: An analysis of North American polar-subtropical jet superpositions that coincide with high-impact weather events. *36th Conference on Climate Variability and Change*, Denver, CO, American Meteorological Society, 6B.5. (Talk)

[24] Fagerson, A., K. Friedrich, K. A. Kosiba, **A. C. Winters**, J. Wurman, J. R. Minder, J. M. Thériault, and J. Gyakum, 2023: Airflow dynamics during a mixed-phase winter precipitation event using radar observations from WINTRE-MIX. *Third Symposium on Mesoscale Processes*, Denver, CO, American Meteorological Society. (Poster)

[23] Beaty, P., J. E. Martin, **A. C. Winters**, and G. M. Lackmann, 2023: A PV inversion based diagnosis of an unusual case of rapid cyclogenesis in the northeast Pacific basin. *Third Symposium on Mesoscale Processes*, Denver, CO, American Meteorological Society, 576. (Poster)

[22] [1]**Baiman, R.,** B. Pohl, **A. C. Winters**, J. Wille, V. Favier, and K. Clem, 2023: A circumpolar view of synoptic drivers of atmospheric rivers reaching Antarctica. *36th Conference on Climate Variability and Change*, Denver, CO, American Meteorological Society, J9B.2. (Talk)

[21] [2]**Lojko, A.**, C. Jablonowski, A. E. Payne, and **A. C. Winters**, 2022: The role of severe thunderstorm jet streaks over North America on the intensification of atmospheric rivers in the Euro-Atlantic. *AGU Fall Meeting*, Chicago, IL, American Geophysical Union, A45O-2065. (Poster)

[20] [1]**Larson, M.,** C. A. Shields, G. Meehl, **A. C. Winters**, A. Morales, A. C. Subramanian, 2022: Present and future climate sensitivity studies of downslope winds in Boulder,

Colorado, *AGU Fall Meeting*, Chicago, IL, American Geophysical Union, A55P-1332. (Poster)

[19] [2]**Maclennan, M. L.,** J. T. M. Lenaerts, J. Wille, C. A. Shields, **A. C. Winters**, L. Barthelemy, F. Codron, V. Favier, 2022: Antarctic atmospheric rivers in the past and future climates. *WAIS Workshop*, Estes Park, CO. (Talk)

[18] Winters, A. C., 2022: Kinematic processes contributing to the intensification of anomalously-strong North Atlantic jets. *EMS Annual Meeting 2022*, Bonn, Germany, European Meteorological Society, EMS2022-298. (Talk)

[17] Minder, J. R., J. R. French, K. Friedrich, D. E. Kingsmill, **A. C. Winters,** N. P. Bassill, and B. Han, 2022: Orographic influences of precipitation type in the Champlain and Saint Lawrence Valleys during the WINTRE-MIX field campaign. *20th Conference on Mountain Meteorology*, Park City, UT, American Meteorological Society, 6.2. (Talk)

[16] [1]**Baiman, R., A. C. Winters,** J. Lenaerts, and C. A. Shields, 2022: Synoptic drivers of landfalling atmospheric rivers near Dronning Maud Land, Antarctica. *17th Conference on Polar Meteorology and Oceanography,* Madison, WI, American Meteorological Society. (Talk)

[15] French, J. R., D. E. Kingsmill, C. Nguyen, L. Nichman, M. Wolde, J. R. Minder, K. Friedrich, **A. C. Winters**, N. P. Bassill, S. DiVito, B. Bernstein, and S. D. Landolt, 2022: Airborne observations of super-cooled drizzle and secondary ice production during WINTRE-MIX. *16th Conference on Cloud Physics*, Madison, WI, American Meteorological Society. (Talk).

[14] [1]**Baiman, R., A. C. Winters,** J. Lenaerts, and C. A. Shields, 2022: Synoptic drivers of landfalling atmospheric rivers near Dronning Maud Land, Antarctica. *EGU General Assembly,* Vienna, Austria, European Geosciences Union, CR7.2. (Talk)

[13] Friedrich, K., J. Minder, J. Wurman, K. Kosiba, J. French, D. Kingsmill, **A. C. Winters**, N. Bassill, J. Theriault, and J. Gyakum, 2022: Variability of mesoscale cloud and precipitation structures during near-freezing surface conditions using ground-based radar observations from WINTRE-MIX. *11th European Conference on Radar in Meteorology and Hydrology*, Locarno, Switzerland. (Talk)

[12] Winters, A. C., and C. L. Walker, 2022: A jet-centered framework for examining synoptic environments conducive to High Plains winter weather events. *31st Conference on Weather Analysis and Forecasting/27th Conference on Numerical Weather Prediction*, Houston, TX, American Meteorological Society, 2.2. (Talk)

[11] Minder, J. R., N. Bassill, J. R. French, K. Friedrich, D. E. Kingsmill, C. Nguyen, L. Nichman, and **A. C. Winters**, 2022: An overview of the Winter Precipitation Type Research Multi-Scale Experiment (WINTRE-MIX). *19th Conference on Mesoscale Processes*, Houston, TX, American Meteorological Society. (Poster)

[10] [2]**Laiho, R.**, K. Friedrich, and **A. C. Winters**, 2022: Characteristics of warm season heavy rainfall in Minnesota. *26th Conference on Applied Climatology*, Houston, TX, American Meteorological Society. (Poster).

[09] [1]**Baiman, R., A. C. Winters,** J. Lenaerts, and C. A. Shields, 2021: Synoptic categorization of landfalling atmospheric rivers near Dronning Maud Land, Antarctica using self-organizing maps. *AGU Fall Meeting*, New Orleans, LA, American Geophysical Union, (Poster).

[08] Winters, A. C., 2021: Subseasonal prediction of the North Pacific jet stream and implications for high-latitude blocking. *Atmospheric Blocking Workshop: Dynamics and Processes*, Virtual, Waves to Weather Program (Talk)

[07] Attard, H. E., and **A. C. Winters**, 2021: Stratospheric and upper-tropospheric interactions prior to multiple nor'easters in March 2018, *34th Conference on Climate Variability and Change*, Virtual, American Meteorological Society, 750. (Poster)

[06] Winters, A. C., 2021: Kinematic processes associated with the formation of anomalously-strong jet streaks over the North Atlantic. *Mesoscale Processes Across Scales: Engaging with Communities in the Physical and Social Sciences*, Virtual, American Meteorological Society, 353. (Poster)

[05] Winters, A. C., 2021: Subseasonal-to-seasonal prediction of the state and evolution of the North Pacific jet stream. *34th Conference on Climate Variability and Change*, Virtual, American Meteorological Society, 775. (Poster)

[04] Winters, A. C., 2020: Subseasonal-to-seasonal prediction of the state and evolution of the North Pacific jet stream. *AGU Fall Meeting*, Virtual, American Geophysical Union, A226-0015. (Poster)

[03] Winters, A. C., 2020: The influence of diabatic heating on the development of two North American jet superposition events. *30th Conference on Weather Analysis and Forecasting/26th Conference on Numerical Weather Prediction*, Boston, MA, American Meteorological Society, 5B.2. (Talk)

[02] Winters, A. C., 2019: The influence of diabatic heating on the development of two North American jet superposition events. *AGU Fall Meeting*, San Francisco, CA, American Geophysical Union, A24J-07. (Talk)

[01] Winters, A. C., D. Keyser, and L. F. Bosart, 2019: The role of subsidence during the development of North American polar/subtropical jet superpositions. *19th Cyclone Workshop*, Seeon, Bavaria, Germany, 30 September 2019. (Talk)

FIRST-AUTHOR CONFERENCE PRESENTATIONS PRIOR TO CU

[28] Winters, A. C., D. Keyser, and L. F. Bosart, 2019: Diagnosing the characteristic interaction between the polar and subtropical jet streams during North American jet superposition events. *44th Annual Northeastern Storm Conference*, Saratoga Springs, NY, Lyndon State College, 9 March 2019. (Talk)

[27] Winters, A. C., D. Keyser, and L. F. Bosart, 2019: Diagnosing the characteristic interaction between the polar and subtropical jet streams during North American jet superposition events. *32nd Conference on Climate Variability and Change*, Phoenix, AZ, American Meteorological Society, 7B.2. (Talk)

[26] Winters, A. C., L. F. Bosart, and D. Keyser, 2018: Diagnosing the characteristic interaction between the polar and subtropical jet streams during North American jet superposition events. *AGU Fall Meeting*, Washington, DC, American Geophysical Union, A31N-3130. (Poster)

[25] Winters, A. C., L. F. Bosart, and D. Keyser, 2018: The development of the North Pacific Jet Phase Diagram at NCEP-WPC as an objective tool to characterize the upper-tropospheric flow pattern. *8th Conference on Transition of Research to Operations*, Austin, TX, American Meteorological Society, 11A.4. (Talk)

[24] Winters, A. C., D. Keyser, and L. F. Bosart, 2018: Antecedent synoptic environments most conducive to North American polar/subtropical jet superpositions. *31st Conference on Climate Variability and Change*, Austin, TX, American Meteorological Society, 555. (Poster)

[23] Winters, A. C., D. Keyser, and L. F. Bosart, 2017: Antecedent synoptic environments most conducive to North American polar/subtropical jet superpositions. *AGU Fall Meeting*, New Orleans, LA, American Geophysical Union, A43I-2585. (Poster)

[22] Winters, A. C., L. F. Bosart, and D. Keyser, 2017: A North Pacific Jet Phase Diagram perspective on extreme weather events during 2016–2017: General characteristics. *18th Northeast Regional Operational Workshop*, Albany, NY, National Weather Service, A.2. (Talk)

[21] Winters, A. C., D. Keyser, and L. F. Bosart, 2017: Discerning the relative importance of polar and tropical upper-tropospheric PV anomalies during North American polar/subtropical jet superpositions. *18th Cyclone Workshop*, Sainte Adele, QC, 2 October 2017. (Talk)

[20] Winters, A. C., L. F. Bosart, and D. Keyser, 2017: A North Pacific Jet phase diagram perspective on extreme weather events during 2016–2017: General Characteristics. *42nd Annual Meeting*, Garden Grove, CA, National Weather Association, C.3. (Poster)

[19] Winters, A. C., L. F. Bosart, and D. Keyser, 2017: Weather Regime-Dependent Predictability: The development of the North Pacific Jet Phase Diagram as a tool to characterize the upper-tropospheric flow pattern. *42nd Annual Northeastern Storm Conference,* Saratoga Springs, NY, Lyndon State College, 11 March 2017. (Talk)

[18] Winters, A. C., D. Keyser, and L. F. Bosart, 2017: Weather regime-dependent predictability: Antecedent environments conducive to the production of high-impact weather events over the United States. *28th Conference on Weather Analysis and Forecasting*, Seattle, WA, American Meteorological Society, 11B.6. (Talk)

[17] Winters, A. C., L. F. Bosart, and D. Keyser, 2016: Weather Regime-Dependent Predictability: Sequentially linked high-impact weather events over the United States during March 2016. *AGU Fall Meeting,* San Francisco, CA, American Geophysical Union, A33J-0397. (Poster)

[16] Winters, A. C., L. F. Bosart and D. Keyser, 2016: Weather Regime-Dependent Predictability: Sequentially linked high-impact weather events over the United States during March 2016. *S2S Extremes Workshop,* Palisades, NY, International Research Institute for Climate and Society, 6 December 2016. (Poster)

[15] Winters, A. C., D. Keyser, and L. F. Bosart, 2016: Regime-dependent predictability of extreme weather events: Characteristic regime types. *17th Northeast Regional Operational Workshop*, Albany, NY, National Weather Service, A.2. (Talk)

[14] Winters, A. C., L. F. Bosart, and D. Keyser, 2016: Regime-dependent predictability of extreme weather events: Characteristic regime types. *41st Annual Meeting*, Norfolk, VA, National Weather Association, 10.5. (Talk)

[13] Winters, A. C., D. Keyser, and L. F. Bosart, 2016: An investigation of the skill of GFS/GEFS forecasts for two recent extreme weather events impacting the eastern United States. *41st Northeastern Storm Conference*, Saratoga Springs, NY, WW1.2. (Talk)

[12] Winters, A. C., L. F. Bosart, and D. Keyser, 2016: An investigation of the skill of week two extreme temperature and precipitation forecasts in the context of two recent extreme weather events. *Special Symposium on Seamless Weather and Climate Prediction – Expectations and Limits of Multi-scale Predictability*, New Orleans, LA, American Meteorological Society, 902. (Poster)

[11] Winters, A. C., and J. Martin, 2015: Insights into the development of a jet superposition during the 18–20 December 2009 Mid-Atlantic Blizzard employing piecewise PV inversion. *17th Cyclone Workshop*, Pacific Grove, CA, 29 October 2015. (Poster)

[10] Winters, A. C., and G. A. McKinley, 2015: Communicating atmospheric science concepts to K12 students with a rotating tank. *CIRTL Forum 2015*, College Station, TX, Center for the Integration of Research, Teaching, and Learning. (Poster)

[09] Winters, A. C., 2015: Inverting the Sawyer-Eliassen Circulation Equation in a synoptic meteorology lab course at UW-Madison. *24th Symposium on Education*, Phoenix, AZ, American Meteorological Society, 5.2. (Talk)

[08] Winters, A.C., and J. Martin, 2014: The production of the vertical superposition of the polar and subtropical jets during the May 2010 Nashville Flood. *27th Conference on Severe Local Storms*, Madison, WI, American Meteorological Society, 98. (Poster)

[07] Winters, A.C., and J. Martin, 2014: An investigation of the mechanisms facilitating jet superpositions. *Department Seminar Series*, UW-Madison Dept. of Atmospheric and Oceanic Sciences, 24 March 2014 (Talk)

[06] Winters, A.C., and J. Martin, 2013: Investigation of the dynamical mechanisms facilitating jet superposition during the 2010 Nashville Flood. *16th Cyclone Workshop*, Sainte-Adele, QC, 23 September 2013. (Talk)

[05] Winters, A.C., and J. Martin, 2013: The impact of a superposed jet's ageostrophic circulation on the 1-2 May 2010 Nashville flooding event and the implications for a warmer climate. *25th Conference on Climate Variability and Change*, Austin, TX, American Meteorological Society, 7B.4. (Talk)

[04] Winters, A.C., 2012: The role of jet superpositions in high-impact weather events: The May 2010 Nashville Flood. *Department Seminar Series*, UW-Madison Dept. of Atmospheric and Oceanic Sciences, 5 December 2012. (Talk)

[03] Winters, A. C., J. Martin, 2011: Planetary-scale influences on the 1-2 May 2010 Tennessee flood event. *AGU Fall Meeting 2011,* San Francisco, CA, American Geophysical Union, A23D-0210. (Poster)

[02] Smith, B. T., **A. Winters**, C. Mead, A. Dean, and T. Castellanos, 2011: Measured severe convective wind gust climatology of thunderstorms for the contiguous United States, 2003-2009. *Tenth Annual Student Conference*, Seattle, WA, American Meteorological Society, S26. (Poster)

[01] Smith, B. T., **A. Winters**, C. Mead, A. Dean and T. Castellanos, 2010: Measured severe convective wind gust climatology of thunderstorms for the contiguous United States, 2003-2009. *25th Conference on Severe Local Storms*, Denver, CO, American Meteorological Society, 16B.3. (Talk)

PROFESSIONAL AFFILIATIONS

American Meteorological Society (2009 – Present)
American Geophysical Union (2016 – Present)

ACRONYM LEGEND

AGU: American Geophysical Union
AGS: Atmospheric and Geospace Sciences
AMS: American Meteorological Society
ASP: Advanced Study Program
ASRC: Atmospheric Science Research Center
ATOC: Department of Atmospheric and Oceanic Sciences
CIMSS: Cooperative Institute for Meteorological Satellite Studies
CRDDS: Center for Research Data and Digital Scholarship

CU: University of Colorado
DAES: Department of Atmospheric and Environmental Sciences
DOE: Department of Energy
EGU: European Geophysical Union
EMC: Environmental Modeling Center
EMS: European Meteorological Society
ESSS: Earth System and Space Science
LEAP: Leadership Education for Advancement and Promotion
MSU: Metropolitan State University
NASA: National Aeronautics and Space Administration
NCAR: National Center for Atmospheric Research
NCEP: National Centers for Environmental Prediction
NOAA: National Oceanic and Atmospheric Administration
NSF: National Science Foundation
NWP: Numerical Weather Prediction
REU: Research Experiences for Undergraduates
SMART: Summer Multicultural Access to Research Training Program
STAC: Science and Technological Activities Commission
SUNY: State University of New York
UAlbany: University at Albany, SUNY
UROP: Undergraduate Research Opportunities Program
UTRGV: University of Texas Rio Grande Valley
UW: University of Wisconsin
UW–AOS: University of Wisconsin Department of Atmospheric and Oceanic Sciences
WAF: Weather Analysis and Forecasting