

Castle A. Williams

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www.castlewilliams.com ♦ castleaw@uga.edu

EDUCATION

The University of Georgia, Franklin College of Arts and Sciences Athens, GA

Ph.D. in Geography Expected May 2020

- Advisor: Dr. Andrew Grundstein
- Dissertation: *Should severe weather messages wear uniforms? The effects of visual and spatial inconsistencies on information seeking behaviors.*

Masters of Science in Geography 2014- 2016

- Advisor: Dr. Andrew Grundstein
- Thesis: *Children forgotten in hot cars: A hybrid mental models approach for improving public health messaging*

Bachelor of Science in Atmospheric Sciences 2009-2014

Bachelor of Science in Geography 2009-2014

Bachelor of Science in Psychology 2009-2014

RESEARCH INTERESTS

Weather & Risk Communication, Societal Impacts of Weather, Behavioral Geography, Atmospheric Hazards

METEOROLOGY AND SOCIETAL APPLICATIONS EXPERIENCE

Impact360 Alliance

Inaugural Steering Committee Member April 2017-Present

- Responsible for stewarding the Alliance and promoting a vision to ensure a safer society from environmental extremes through innovative partnerships, transformative interdisciplinary research, and effective knowledge mobilization.

American Meteorological Society – Committee on Effective Communication of Weather and Climate Information Athens, GA

Student Member January 2017-Present

- Facilitate effective communication of weather, water, and climate information within our sciences and to the larger user community, especially our most important “user,” the general public.

Weather Hype Podcast - A weather and societal impacts podcast

Athens, GA

Co-Founder

March 2016-Present

- Create bi-monthly audio podcast on weather and climate issues relating to society and the many publics.
- Schedule interviews and produce content with guests in meteorology, climate, and social science.
- Edit audio podcasts using Audacity software for publication on iTunes, Google Play, and other podcasting apps.
- Develop branding materials for promoting podcast through self-maintained website and social media.

National Weather Association – Committee on Societal Impacts

Athens, GA

Committee Member

January 2016-Present

- Advise and service the National Weather Association (NWA) in matters related to societal impacts of weather and climate.
- Raise awareness, encourage, and support efforts within the NWA relating to societal impacts of weather and climate.
- Support the application of social science principles into operational meteorology and decision support for hazardous weather and high impact events, as well as day-to-day forecasting and operations.
- Develop and strengthen relationships between social scientists, operational meteorologists, and decision makers, particularly those responsible for public safety.

Weather and Society * Integrated Studies (WAS*IS) Students Organization

Athens, GA

Co-Founder

January 2015-Present

- Established organization to bring together students passionate about social science in weather and climate.
- Maintain social media presence for organization and update members on relevant opportunities and events.
- Host events at American Meteorological Society annual meetings to advertise our organization.

PEER- REVIEWED PUBLICATIONS

- **Williams, C. A.**, and Eosco, G. M. Is a consistent message achievable? A multidisciplinary framework for defining ‘message consistency’ in the weather enterprise. *Bulletin of the American Meteorological Society (BAMS)*. ***In Review***.
- **Williams, C.A.**, and Grundstein, A.J. (2017). Children Forgotten in Hot Cars: A mental models approach for improving public health messaging. *Injury Prevention*. Published Online First: 09 August 2017. doi: [10.1136/injuryprev-2016-042261](https://doi.org/10.1136/injuryprev-2016-042261)

- **Williams, C.A.**, Miller, P.W., Black, A.W., and Knox, J.A. (2017). Throwing caution to the wind: National Weather Service wind products as perceived by a weather-salient sample. *Journal of Operational Meteorology*. 5(9), 103-120.
- Miller, P.W., Black, A.W., **Williams, C.A.**, and Knox, J.A. (2016). Maximum wind gusts associated with human-reported nonconvective wind events and a comparison to current warning issuance criteria. *Weather and Forecasting*. 31(2), 451-465. doi:
- Miller, P.W., Black, A.W., **Williams, C.A.**, and Knox, J.A. (2016). Quantitative assessment of human wind speed overestimation. *Journal of Applied Meteorology and Climatology*. 55(4), 1009-1020. doi: <http://dx.doi.org/10.1175/waf-d-15-0112.1>
- Stewart, A.E., **Williams, C.A.**, Phan, M.D., Horst, A.L., Knox, E., Knox, J.A. (2016). Through the Eyes of the Experts: Meteorologists' Perception of the Probability of Precipitation. *Weather and Forecasting*, 31(1), 5-17. doi: <http://dx.doi.org/10.1175/waf-d-15-0058.1>
- Grundstein, A.J., **Williams, C.A.**, Phan, M.D., Cooper, B. (2015). Regional Heat Safety Thresholds for Athletics. *Applied Geography*, 56, 55-60. doi: <http://dx.doi.org/10.1016/j.apgeog.2014.10.014>

BOOK CHAPTERS

- Grundstein, A.J., and **C. A. Williams** (2018). Heat exposure and the general public: Health impacts, risk communication, and mitigation measures. In *Human Health and Physical Activity During Heat Exposure* (pp. 29-43). Springer, Cham. Available online at: https://link.springer.com/chapter/10.1007/978-3-319-75889-3_3

OTHER PUBLICATIONS

- **Williams, C.A.** and P.W. Miller, (2016, September). Fighting fatigue: The role of warning frequency in the weather enterprise. *The Weather Social*: <https://thewxsocial.com/2016/09/09/fighting-fatigue-the-role-of-warning-frequency-in-the-weather-enterprise/>
- Stewart, A. E., **C. A. Williams**, M. D. Phan, A. L. Horst, E. D. Knox, and J. A. Knox, 2016: Through the experts' eyes: Meteorologists' perceptions of the probability of precipitation. *Bulletin of the American Meteorological Society*, **97**, 905. (Papers of Note summary)

WeatherHype Podcast: A podcast for casual weather conversation. Hosted by **Castle Williams** and Minh Phan. This podcast tackles important weather/society-related stories to educate listeners in a very informal, unstructured way. Available on iTunes, Google Play, Stitcher, and other podcast applications: <http://www.weatherhypepodcast.com/>

FELLOWSHIPS & FUNDING

Grants:

- **Implications of inconsistent visual displays on end user uncertainty, risk perception, and behavioral intentions**, A Grundstein, J. So, and C.A Williams.
Joint Technology Transfer Initiative (JTII), National Oceanic and Atmospheric Administration (**\$178,203**) 2018-2020

Fellowships:

- **Graduate Research Internship Program**, In partnership with National Science Foundation and National Weather Service (**\$5,000**) 2017-2018
- **Graduate Research Fellowship**, National Science Foundation (**\$138,000**) 2015-2020
- **AMS Graduate Fellowship**, American Meteorological Society (**\$25,000**) 2014-2015

Scholarships:

- **AMS Named Scholarship**, American Meteorological Society (**\$2,000**) 2013-2014
- **Merle C. Prunty, Jr. Scholarship**, UGA Department of Geography (**\$2,000**) 2011-2012

CONFERENCE PRESENTATIONS

Presentations at Professional Meetings:

- **Williams, C.A.**, Grundstein, A.J, and So, J. (2019, June). *Should Severe Weather Graphics Wear Uniforms? A Qualitative Look at the SPC's Convective Outlook Graphic Among Members of the Public*. Oral presentation at the American Meteorological Society Broadcast Meteorology and Warning Communication Conference, San Diego, CA.
- **Williams, C.A.**, and Grundstein, A.J. (2019, January). *Is a Consistency Message Achievable? A Multidisciplinary Look at Defining 'Consistency' in the Weather Enterprise*. Oral presentation at the National American Meteorological Society Conference, Phoenix, AZ.
- **Williams, C.A.**, and Grundstein, A.J. (2018, January). *Consistency and Weather Communication: A Multidisciplinary Perspective on the Use of "Consistency."* Oral presentation at the UGA Geography Graduate Research Symposium, Athens, GA. Received Best Presentation Award.
- **Williams, C.A.**, and Grundstein, A.J. (2018, January). *Consistency and Weather Communication: A Multidisciplinary Perspective on the Use of "Consistency."* Oral presentation at the National American Meteorological Society Conference, Austin, TX.
- **Williams, C.A.**, Sprague J., Eosco, G.M., Jacks, E., Hawkins, M., Piring, A.T., and Klockow, K.E. (2018, January). *Expanding the NWS Hazard Simplification Project: An Exploration of Non-Precipitation Products*. Oral presentation at the National American Meteorological Society Conference, Austin, TX.

- Hawkins, M., Jacks, E., Ferrell J.G., Horvitz, A., Purring, A.T., **Williams, C.A.**, and Eosco, G.M. (2018, January). *NWS Hazard Simplification: Effective Communication of Heat Hazards*. Oral presentation at the National American Meteorological Society Conference, Austin, TX.
- **Williams, C.A.**, and Grundstein, A.J. (2016, January). *Turning up the Heat on Parents and Caregivers: Risk Perceptions of Forgetting a Child in a Hot Car*. Oral presentation at the National American Meteorological Society Conference, New Orleans, LA. Received a Student Presentation Award from the Seventh Conference on Environment and Health.
- **Williams, C.A.**, Miller, P.W., Black, A.W., and Knox, J.A. (2016, January). *Throwing Caution to the Wind: National Weather Service Wind Products as Perceived by a Weather-Savvy Public*. Oral presentation at the National American Meteorological Society Conference, New Orleans, LA. Received Third Place at Large from the 11th Symposium on Societal Applications: Policy, Research, and Practice.
- **Williams, C.A.**, Miller, P.W., Black, A.W., and Knox, J.A. (2015, October). *Throwing Caution to the Wind: A Weather-Savvy Perspective on Wind Terminology and Wind Damage*. Poster presentation at the National Weather Association Conference, Oklahoma City, OK.
- **Williams, C.A.**, Phan, M.D., Grundstein, A.J., Cooper, B. (2015, January). *A Proposed Regional System of Categorizing Wet Bulb Globe Temperature for Athletic Outdoor Policy*. Oral presentation at the National American Meteorological Society Conference, Phoenix, AZ.
- **Williams, C. A.**, Stewart, A.E., Phan, M.D., Horst, A.L., Knox, E., Knox, J.A. (2015, January). *Through the Eyes of the Experts: The Perception of the Probability of Precipitation*. Poster session presented at the National American Meteorological Society Student Conference, Phoenix, AZ.
- **Williams, C.A.**, Phan, M.D., Grundstein, A.J., Cooper, B. (2014, October). *Geographically-Based Heat Safety Thresholds in Athletics*. Oral presentation at the Conference of Applied Geography, Atlanta, GA.
- Phan, M.D., **Williams, C.A.**, Grundstein, A.J., Cooper, B. (2014, September). *A Proposed Regional System of Categorizing Wet Bulb Globe Temperature for Athletic Outdoor Policy*. Oral presentation at the International Congress of Biometeorology, Cleveland, OH.
- **Williams, C. A.**, Stewart, A.E., Horst, A.L., Phan, M.D., Knox, E., Brough, B., Knox, J.A. (2014, April). *Through the Eyes of the Experts: The Perception of the Probability of Precipitation*. Poster session presented at University of Geography - Geography Undergraduate Conference, Athens, GA.
- **Williams, C. A.**, Stewart, A.E., Horst, A.L., Phan, M.D., Knox, E., Brough, B., Knox, J.A. (2014, February). *Through the Eyes of the Experts: The Perception of the Probability of Precipitation*. Oral presentation at the National American Meteorological Conference, Atlanta, GA.
- Phan, M.D., **Williams, C.A.**, Grundstein, A.J., Cooper, B. (2014, February). *Regional WBGT Heat Safety Thresholds for Athletics*. Poster session presented at the National American Meteorological Student Conference, Atlanta, GA.

- **Williams, C.A.,** Phan, M.D., Grundstein, A.J., Cooper, B. (2013, November). *An Investigation of Extreme Wet-Bulb Globe Temperatures Across the Contiguous United States*. Poster session presented at the Southeastern Division of the Association of American Geographers, Roanoke, VA.

Panels at Professional Meetings:

- **Williams, C.A.** (2016, January). *Communicating uncertainty in weather and climate – From Probability of Precipitation to Beyond CO₂*. Town hall panel session during the National American Meteorological Conference, New Orleans, LA.
- **Williams, C.A.** (2019, September). *Perspectives on the R2O Transition Process*. Panel session during the Office of Weather and Air Quality’s Social and Behavioral Science Research to Operations Workshop, Silver Spring, MD.

QUOTED

- Budnick, N. (2019, August). When memory fails. *The Weather Channel*. Retrieved from: <https://features.weather.com/when-memory-fails/>
- Shepherd, M. (2018, September). Five things that must change after Hurricane Florence. *Forbes*. Retrieved from: <https://www.forbes.com/sites/marshallshepherd/2018/09/17/five-things-that-must-change-after-hurricane-florence/#1d4a287724a9>
- Breslin, S. (2018, September). 42 children have died in hot cars in 2018 – More than the Average for an entire year. *Weather.com*. Retrieved from: https://weather.com/safety/heat/news/2018-09-05-hot-car-deaths-above-average?utm_source=eGaMorning&utm_campaign=8846c27b53-eGaMorning-9_7_18&utm_medium=email&utm_term=0_54a77f93dd-8846c27b53-71063218&mc_cid=8846c27b53&mc_eid=c09a25d7ef
- Shepherd, M. (2018, July). Five confessions of a weather-climate scientist visiting iconic national parks. *Forbes*. Retrieved from: <https://www.forbes.com/sites/marshallshepherd/2018/07/04/5-confessions-of-a-weather-climate-scientist-visiting-iconic-national-parks/#24aa663f4592>
- University of Georgia Research (2018). Preventing deaths of children in hot cars. Retrieved from: <https://ugaresearch.uga.edu/new-research-aims-to-prevent-deaths-of-children-in-hot-cars/>
- Luton, J. (2017, September). New research focuses on hot car deaths. *UGA Today*. Retrieved from: <https://news.uga.edu/new-research-aims-to-prevent-deaths/>
- Shepherd, M. (2016, June). Does it get hot enough in a car to bake turkey? *Forbes*. Retrieved from: <http://www.forbes.com/sites/marshallshepherd/2016/06/13/does-it-get-hot-enough-in-a-car-to-bake-turkey/#3b890efc5e01>
- Shepherd, M. (2016, April). “Turn around don’t drown” is a cute slogan: Why some don’t do it. *Forbes*. Retrieved from: <http://www.forbes.com/sites/marshallshepherd/2016/04/19/turn-around-dont-drown-is-a-cute-slogan-why-some-dont-do-it/#519d41e13695>

- Shepherd, M (2015, November). Do you (or your meteorologist) understand what 40% chance of rain means? *Forbes*. Retrieved from: <http://www.forbes.com/sites/marshallshepherd/2015/11/27/do-you-or-your-meteorologist-understand-what-40-chance-of-rain-means/#346f952e7d16>

RESEARCH EXPERIENCE

National Weather Service – Graduate Research Internship Program Silver Spring, MD
Intern May 2017-Present

- Expanding the Hazard Simplification Project to address non-precipitation hazards (i.e., extreme heat and high winds).
- Acting as a Social Science Subject Matter Expert for the Hazard Simplification Project.

National Science Foundation – Graduate Research Fellowship Program Athens, GA
Research Assistant June 2015-Present

- Working on research with a fellowship from the National Science Foundation Graduate Research Fellowship.

Federal Emergency Management Agency - Region IV Atlanta, GA
Pathways Intern February 2015-October 2015

- Worked on a research project, with The Hurricane Program, involving coastal vulnerability of states in FEMA Region IV.

AMS Graduate Fellowship – American Meteorological Society Athens, GA
Research Assistant August 2014-May 2015

- Worked on research with a fellowship from the American Meteorological Society's 21st Century Campaign.

University of Georgia – Department of Geography Athens, GA
Research Assistant February 2013-May 2014

- Worked on a joint grant with the National Institutes of Health.
- Mapped a spatial relationship of temperature and heat index within the Atlanta-Metro Area for an in-depth epidemiological study.
- Used ArcGIS software and various programming languages to evaluate data.
- In collaboration with Dr. Andrew Grundstein and Emory University.

TEACHING AND ADVISING EXPERIENCE

Department of Geography Athens, GA
Introduction to Physical Geography Teaching Assistant Fall 2018

Office of the Vice President for Instruction Athens, GA
Peer Advisor and Co-Creator August 2011-May 2012, August 2013-May 2014

- Assisted freshmen-year students with creating successful study strategies.
- Helped freshmen students become familiarized with a new college setting.
- Offered outside tutoring assistance for freshmen students.
- Provided freshmen students with a strong, positive, and academic influence.

College of Education

Athens, GA

Sign Language Teaching Assistant

Summer 2011, Spring 2012- Spring 2013

- Assisted professor with any organizational tasks prior to the start of class.
- Created lesson plans and filled in during the professor's absence.
- Graded papers and handled confidential information.
- Assisted students who required additional tutoring.

HONORS AND AWARDS

- Best Presentation Award, UGA Geography Graduate Research Symposium Spring 2018
- Third Place at Large, AMS Conference on Societal Applications Spring 2016
- Student Presentation Award, AMS Conference on Environment & Health Spring 2016
- Atlas Award Recipient for Academic Achievement Spring 2014
- Third Place, AMS Weather Ready Nation Poster Competition Spring 2014
- Presidential Scholar Fall 2012
- Top 100 UGA Student Workers Fall 2010-Spring 2011
- Dean's List 2009, 2012, Spring and Summer 2013
- UGA Honor's Day Invitee (Top 5%) Spring 2010

SERVICE

Professional Service:

- *Chair*, Improving Communication of Dangerous Weather. Session at AMS Broadcast Meteorology and Warning Communication Conference. June 2019
- *Co-Chair*, Issues with (In)Consistency in the Warning and Forecast Process: Part II. Session at the National AMS Conference January 2019
- *Co-Chair*, Matt Parker Communication Workshop entitled: "(In)Consistency in a Social Media World: Communication Reflections of the 2017 Hurricane Season" January 2018
- *Chair*, Building Professional Relationships. Session at the National AMS Student Conference January 2018
- *Co-Organizer*, Consistency of Graphics in the Weather Enterprise NWA Webinar – Societal Impacts Committee March 2017
- *Co-Chair*, Today's Insights and a Vision for Tomorrow. Session at the National AMS Student Conference January 2017
- *Co-Chair*, Social Science, Communication, and the Weather Enterprise. Panel session at the National AMS Student Conference January 2017

- *Student Member*, AMS Committee on Effective Communication of Climate and Weather Information 2017-2019
- *Member*, AMS Student Conference Planning Committee 2016-2018
- *Committee Member*, NWA Societal Impacts Committee 2016-2018

Departmental Service:

- *Space Committee*, UGA Geography Department 2019-2020
- *Organizing Committee*, UGA Geography Undergraduate Conference 2017-2018
- *Organizing Committee*, UGA Geography Undergraduate Conference 2016-2017
- *Judge*, UGA Geography Graduate Research Symposium February 2017
- *Co-Chair*, UGA Geography Graduate Student Association 2016-2017
- *Organizing Committee*, UGA Geography Undergraduate Conference 2015-2016
- *Social Coordinator*, UGA Geography Graduate Student Association 2015-2016
- *Graduate Representative*, UGA Local Chapter of AMS 2014-2016

REVIEWER

- Bulletin of the American Meteorological Society (BAMS) 2019
- Southeastern Geographer 2019
- Traffic Injury Prevention 2018

PROFESSIONAL MEMBERSHIPS/AFFILIATIONS

- National Weather Association (NWA) 2015-present
- International Society of Biometeorology (ICB) 2014-present
- Co-Creator, Weather and Society Integrated Studies (WAS*IS) Students 2014-present
- American Meteorological Society – National and Local Member 2011-present
- The International Environmental Communication Association 2016-2017

SKILLS

- Microsoft Suite (Word, Excel, PowerPoint, etc.).
- Adobe Suite (Photoshop, After Effects, Pro Premiere).
- Programming Languages (HTML, Java, and R)
- Geographic Information Systems (ArcGIS, ArcMap).
- Podcast Producing and Audio Editing (Audacity)

TRAINING

- Human Subjects Training
- CITI – Social and Behavioral Research & Internet-based Research
- IS-100: Introduction to Incident Command Systems (FEMA)
- IS-200: ICS for Single Resources and Initial Action Incidents (FEMA)
- IS-700: National Incident Management System (FEMA)
- IS-800: National Response Framework (FEMA)