

EDUCATION

- Ph.D. Atmospheric Sciences** University of Utah, UT 2020
Dissertation: "Using A-Train Observations to Evaluate Cloud Occurrence and Radiative Effects in the Community Atmosphere Model"
Adviser: Dr. Jay Mace
Awards: Edward J. Zipser Award for Excellence in Graduate Research (2015)
- M.S. Atmospheric Sciences** University of Utah, UT 2011
Thesis: "Investigating Cirrus Cloud Behavior Using A-Train and Geostationary Satellite Data"
Adviser: Jay Mace
- B.S. Meteorology** Plymouth State University, NH 2007
Adviser: Dr. James Koermer

PEER-REVIEWED PUBLICATIONS

- Berry, E., G. G. Mace and A. Gettelman (2020)**, Using A-Train Observations to Evaluate East Pacific Cloud Occurrence and Radiative Effects in the Community Atmosphere Model, *J. Clim.*, 33, 6187-6203, DOI: 10.1175/JCLI-D-19-0870.1.
- Berry, E., G. G. Mace and A. Gettelman (2019)**, Using A-Train Observations to Evaluate Cloud Occurrence and Radiative Effects in the Community Atmosphere Model during the Southeast Asia Summer Monsoon. *J. Clim.*, 32, 4145-4165, DOI: 10.1175/JCLI-D-18-0693.1.
- Mace G. G and **E. Berry** (2017), Using Active Remote Sensing to Evaluate Cloud-Climate Feedbacks: a Review and a Look to the Future. *Curr. Clim. Change Rep.*, 3, 185-192, DOI 10.1007/s40641-017-0067-9.
- Deng, M., G. G. Mace, Z. Wang, and **E. Berry** (2015), CloudSat 2C-ICE Product Update with a New Ze Parameterization in Lidar-only Region. *J. Geophys. Res. Atmos.*, 120, 12198-12208, doi:10.1002/2015JD023600.
- Berry, E.** and G. G. Mace (2014), Cloud properties and radiative effects of the Asian summer monsoon derived from A-Train Data. *J. Geophys. Res. Atmos.*, 119, 9492-9508.
- Muhlbauer, A., **E. Berry**, J. Comstock and G. G. Mace (2014), Perturbed physics ensemble simulations of cirrus on the cloud system-resolving scale. *J. Geophys. Res. Atmos.*, 119, 4709-4735, doi:10.1002/2013JD020709.
- Protat, A., S. A. Young, S. McFarlane, T. L'Ecuyer, G. G. Mace, J. Comstock, C. Long, **E. Berry**, and J. Delanoë (2014), Reconciling Ground-Based and Space-Based Estimates of the Frequency of Occurrence and Radiative Effect of Clouds around Darwin, Australia, *J. Appl. Meteor. Climatol.*, 53, 456-478, doi: 10.1175/JAMC-D-13-072.1.
- Berry, E.** and G. Mace (2013), Cirrus Cloud Properties and the Large-Scale Meteorology: Relationships derived from A-Train and NCEP/NCAR Reanalysis Data, *J. Appl. Meteor. Climatol.*, 52, 1253-1276, doi:10.1175/JAMC-D-12-0102.1.

PROFESSIONAL EXPERIENCE

Postdoctoral Research Associate Jan-Jun 2020

University of Utah, Department of Atmospheric Sciences

- Evaluated changes in liquid cloud fraction and brightness from Community Atmosphere Model version 5 to version 6 (with new CLUBB parameterization)

Graduate Research Assistant 2007 – 2019

University of Utah, Department of Atmospheric Sciences

- Defined data-based cloud radiative kernels to evaluate cloud occurrence and radiative effects in a climate model using A-Train satellite observations
- Implemented a radiative transfer model to evaluate the contribution of individual cloud types to the overall energy budget. Characterized the relationship between cloud ice water path and radiative effect to determine which ice clouds are most important, radiatively.
- Identified cirrus from CloudSat/CALIPSO satellites; Classified cirrus into main types based on their microphysics and dynamics; Obtained time evolution from geostationary satellite.

Teaching Assistant (Climate Change for non-majors) 2012 - 2013

University of Utah, Department of Atmospheric Sciences

- Designed assignments; Performed substitute teaching; Created lecture on climate mitigation

Summer Intern 2007

Weather Services International, Andover, MA

- Updated operational weather products for energy / aviation customers
- Performed frontal analyses and quality control of radar

Summer Intern 2006

NASA's Applied Meteorology Unit, Cape Canaveral Air Force Station, FL

- Extended a convective wind climatology using wind tower data at the Kennedy Space Center to help improve forecasts for convective wind warnings

WORKSHOPS

CloudSat Algorithm Developers Working Group Workshop 2014

University of Utah, Salt Lake City, UT

NASA Workshop on Outstanding Questions 2014

Ames Research Center, Moffett Field, CA

NASA Water Cycle Missions for the Next Decade 2013

Baltimore, MD

Summer School on Using Satellite Observations to Advance Climate Models 2012

Jet Propulsion Laboratory Center for Climate Sciences, Pasadena, CA

- One of 30 students accepted from over 200 applications worldwide

Atmospheric Science Collaborations and Enriching Networks (ASCENT) Workshop 2011

Steamboat Springs, CO

TECHNICAL SKILLS

Programming: Proficient in IDL, shell scripts
Working knowledge of MATLAB, Fortran, Perl, HTML

Statistical Analysis: Clustering Algorithms, Compositing, Spatial Pattern Tracking

SELECTED CONFERENCE PRESENTATIONS

Berry, E., G. Mace and A. Gettelman (2020), Using A-Train Observations to Evaluate East Pacific Cloud Occurrence and Radiative Effects in the Community Atmosphere Model, CloudSat/CALIPSO Science Team Meeting, Boulder, CO. (*oral presentation*)

Berry, E., G. Mace and A. Gettelman (2018), Using A-Train Observations to Evaluate Cloud Occurrence and Radiative Effects of Tropical Clouds in the Community Atmosphere Model, AGU Fall Meeting, Washington, D.C. (*oral presentation*)

Berry, E. and G. Mace (2015), Using A-Train Observations to Evaluate Ice Water Path and Ice Cloud Radiative Effects in the Community Atmosphere Model, CFMIP Meeting on Cloud Processes and Climate Feedbacks, Monterey, CA. (*poster*)

Berry, E. and G. Mace (2014), Relationships Between Ice Cloud Properties and Radiative Effects from A-Train Observations and Global Climate Models, AGU Fall Meeting, San Francisco, CA. (*poster*)

- Participated in the Outstanding Student Paper Awards program and received positive feedback from the judges (combined score 126/135)

Berry, E. and G. Mace (2013), Using A-Train Satellite Data to Investigate the Relationship Between Cloud Ice Water Path and Cloud Radiative Effects, Gordon Research Seminar on Radiation and Climate, New London, NH. (*oral presentation*)

Berry, E. and G. Mace (2012), Cloud Properties and Radiative Forcing in Southeast Asia, 1st Pan-Global Atmospheric System Studies Meeting, Boulder, CO. (*poster*)

Berry, E. and G. Mace (2011), Does aerosol loading in a convective environment influence cirrus anvil properties?, AGU Fall Meeting, San Francisco, CA. (*oral presentation*)

Berry, E. and G. Mace (2011), A-Train Cloud Retrieval Comparisons in the Bay of Bengal, 5th Graduate Climate Conference, Woods Hole, MA. (*poster*)

Dupont, E., and G. Mace (2010), Understanding Cirrus Cloud Behavior Using Observations from A-Train and Geostationary Satellite and NCEP/NCAR Reanalysis Data, 13th AMS Conference on Cloud Physics, Portland, OR. (*oral presentation*)

Dupont, E., G. Mace, P. Minnis, and R. Palikonda (2009), Cluster Analysis of Atlantic Cirrus Clouds and Synoptic Scale Dynamics of Growing and Dissipating Cirrus Events, CALIPSO/CloudSat Science Workshop, Madison, WI. (*oral presentation*)

Cummings, K., **E. Dupont**, A. Loconto, J. Koermer, and W. Roeder (2007), An Updated Warm-Season Convective Wind Climatology for the Florida Space Coast, 16th AMS Conference of Applied Climatology, San Antonio, TX. [Extended abstract available online at <http://ams.confex.com/ams/pdfpapers/117450.pdf>.] (*oral presentation*)

PROFESSIONAL ACTIVITIES

Reviewer	<i>JAMC; JAMES; JAS; GRL; JCLIM</i>	2015- <i>present</i>
Member	American Geophysical Union	2009 - <i>present</i>
Member	American Meteorological Society	2006 – <i>present</i>

FIELD EXPERIENCE

Southeast Asia Composition Cloud Climate Coupling Regional Study (SEACRS)	2012
• Participated in flight planning and execution practice	
Midlatitude Airborne Cirrus Properties Experiment (MACPEX)	2011
• Performed preliminary analysis on particle size distribution data	
Storm Peak Laboratory Cloud Property Validation Experiment (STORMVEX)	2010
• Operated in situ cloud probes, launched weather balloons	

OUTREACH EXPERIENCE

Volunteer	Cottonwood Canyons Foundation	2013 - 2014
• Led guided hikes for the public during the Wasatch Wildflower Festival		
Volunteer	Science Olympiad STEM competition	2012
• Graded the remote sensing exam for high school students		
Co-presenter	Atmospheric Sciences Department Seminar	2011
• “The ASCENT Workshop: Practical Lessons on Being a Successful Scientist”		

FUNDING AWARDS

Post-doctoral funding support to attend CloudSat/CALIPSO Science Team Meeting	2020
Student funding support to attend the Gordon Research Conference	2013
Student funding support to attend the 1st Pan-GASS Workshop	2012
AGU Travel Grant to attend the IUGG 2011 General Assembly	2011
Science and Mathematics Access to Retain Talent (SMART) Grant	2006 - 2007
NASA Space Grant	2003 - 2007
Plymouth State University Presidential Scholarship	2003 - 2007