

# Christina L. Wall

## Personal Information

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## Areas of Concentration

Convection  
Remote Sensing  
Precipitation  
Aerosols  
Mountain Weather  
TRMM  
CloudSat  
MODIS

## Programming Languages

IDL  
HTML  
MATLAB  
FORTRAN

## EDUCATION

- 2013 Ph.D. Atmospheric Science, University of Utah  
"The Impact of Aerosols on Convective Clouds: A Global Perspective"  
*Committee: Ed Zipser, Susan van den Heever, Jay Mace, Tim Garrett, and Steve Krueger*
- 2009 M.S. Atmospheric Science, University of Utah  
"Characteristics of Monsoonal Thunderstorms in Arizona and New Mexico"  
*Committee: Ed Zipser, John Horel, and Chuntao Liu*
- 2006 B.S. Meteorology, Summa Cum Laude, University of Oklahoma

## CURRENT POSITION

2013-present Postdoctoral Researcher for Dr. Ed Zipser  
University of Utah

## PROFESSIONAL EXPERIENCE

- 2013 Attendee of Preparing for an Academic Career in the Geosciences workshop by On the Cutting Edge
- 2007-2008 Graduate Fellow; Water, the Environment, Science, and Teaching (WEST), NSF GK-12 Fellowship
- 2006-2013 Graduate Research Assistant for Dr. Ed Zipser  
University of Utah
- 2004-2005 Mesonet Operator, Oklahoma Mesonet

## FIELD EXPERIENCE

- 2012 Mountain Terrain Atmospheric Modeling and Observations (MATERHORN)  
*Radiosonde launches*
- 2011 Midlatitude Continental Convective Clouds Experiment (MC3E)  
*Forecaster, NPOL operator*
- 2011 Storm Peak Laboratory Cloud Property Validation Experiment (STORMVEX)  
*Radiosonde launches, operations, and education*

- 2011            Sounding Observations of Lake-effect Precipitation Experiment (SOLPEX)  
                    *Radiosonde launches and Doppler on Wheels (DOW) operations*
- 2010            Persistent Cold Air Pool Study (PCAPS)  
                    *Radiosonde launches, CO<sub>2</sub> observations*
- 2006            Meteor Crater Experiment (METCRAX)  
                    *Set up, sensor maintenance, and support*

## PEER-REVIEWED RESEARCH

- Wall, C. L., E. J. Zipser, C. Liu, 2013:** An Investigation of the Aerosol Indirect Effect on Convective Intensity using Satellite Observations, *J. Atmos. Sci.*, in press.
- Wall, C. L., C. Liu, E. J. Zipser, 2013:** A Climatology of Congestus in the Tropics using CloudSat. *J. Geophys. Res. Atmos.*, **118**, 6478–6492. doi: 10.1002/jgrd.50455
- Wall, C. L., E. J. Zipser, C. Liu, 2012:** A Regional Climatology of Monsoonal Precipitation in the Southwestern United States Using TRMM. *J. Hydrometeor.*, **13**, 310–323. doi: 10.1175/JHM-D-11-031.1

## CONFERENCES AND SEMINARS

- Wall, C. and E. Zipser, 2012:** Regional Impacts of Aerosols on Convection: Using Satellite and Reanalysis Data to Isolate Aerosol Effects, Abstract A53R-0458, 2012 Fall Meeting, AGU, San Francisco, CA.
- Wall, C., 2012:** Observations of convective clouds and precipitation in the Southwest United States using TRMM and the A-Train, Southwest Climate: Past, Present, and Future Workshop sponsored by the Institute for Geophysics and Planetary Physics, September 6-7, 2012, Jemez Springs, NM.
- Wall, C., C. Liu, and E. Zipser, 2011:** Study of tropical deep convection and its role in transport of trace gases using multi-satellite observations from the A-Train, Abstract A23D-0199, 2011 Fall Meeting, AGU, San Francisco, CA.
- Wall, C. and B. Berry:** The ASCENT Workshop: Practical Lessons on Being a Successful Scientist, Department Seminar, August 25, 2011.
- Wall, C., E. Zipser, and C. Liu, 2009:** Diurnal Cycle of Monsoon Thunderstorms in Arizona and New Mexico from Spaceborne and Surface-based Radar, 13<sup>th</sup> Conference on Mesoscale Processes, Salt Lake City, UT.
- Wall, C:** Characteristics of Monsoonal Thunderstorms in Arizona and New Mexico, Master's Defense, July 30, 2009.

- Wall, C.** and E. Zipser, 2009: Diurnal cycle of monsoon rainstorms in complex terrain from spaceborne and surface-based radar, EGU General Assembly, Vienna, Austria.
- Wall, C.** C. Liu, and E. Zipser, 2008: Characteristics of Monsoon Precipitation in the Southwest US using TRMM, 13<sup>th</sup> Conference on Mountain Meteorology, Whistler, British Columbia, Canada.
- Wall, C.,** C. Liu, and E. Zipser, 2008: Characteristics of TRMM Precipitation Features at Different Elevations in Mexico, 3<sup>rd</sup> International TRMM conferences, Las Vegas, NV.
- Shapiro, A., **C. Wall,** and E. Fedorovich, 2006: Coriolis Effects in Katabatic Flow along a Differentially Cooled Sloping Surface in a Stratified Fluid, 17<sup>th</sup> Symposium on Boundary Layers and Turbulence, San Diego, CA.

## **FORECASTING EXPERIENCE**

- 2007-2012      Forecaster, Utah Ski Weather website  
                                          *Forecasted for each ski resort in Utah 1-3 times per week*
- 2011              Forecaster, MC3E Field Project  
                                          *Created a forecast and led forecast discussions to determine which days were best suited to IOPs, allowing 24 hours of lead time for the ER-2 and UND Citation to prepare for missions.*
- 2006-2008      Forecaster, University of Utah Campus Forecast  
                                          *Led a group of undergraduate students in developing a forecast for the university, which was displayed on monitors around campus.*
- 2002-2004      Forecaster, Oklahoma Weather Lab  
                                          *Developed forecasting skills by forecasting for the University of Oklahoma.*

## **SERVICE, HONORS, AND OUTREACH EXPERIENCE**

- 2012              Reviewer for *Journal of Atmospheric Science*
- 2013              Scientist role model for at-risk youth in Santa Fe, New Mexico
- 2012-2013      Vice President, Utah Chapter of the American Meteorological Society
- 2012              Reviewer for *Journal of Arid Environments*
- 2012              Guest lecturer for Cottonwood Canyons Foundation  
                                          *Taught session on winter weather in Utah.*
- 2012              Guest lecturer at Salt Lake Community College  
                                          *Taught segment on tornadoes and severe weather.*
- 2011              Student Assistant, Atmospheric Science Collaborations and Enriching NeTworks (ASCENT) workshop
- 2011-2012      Program Committee Chair, Utah Chapter of the American Meteorological Society

- 2010-2012 Volunteer guide for the Wasatch Wildflower Festival  
*Led hikes in the Wasatch for all ages.*
- 2008-2011 Volunteer snowshoe field trip leader  
*Led snowshoe field trips designed for 4<sup>th</sup>-6<sup>th</sup> grade by the Cottonwood Canyons Foundation (CCF), a non-profit organization that promotes stewardship of the local watershed. Topics included hydrology, local fauna, ecology, public lands, and human impacts.*
- 2007-2010 Science fair judge for multiple elementary and high school science fairs in the Salt Lake valley
- 2007-2008 Ski ranger for the Cottonwood Canyons Foundation (CCF)  
*Educated skiers at Solitude Mountain Resort about wildlife, weather, hydrology, and the environment.*
- 2007-2008 Science teacher for 4<sup>th</sup> and 6<sup>th</sup> grade classes at Escalante Elementary  
*Planned lessons and taught 2-4 classes/week as part of the WEST Fellowship.*
- 2006 Elected to Phi Beta Kappa
- 2006-2012 Guest speaker/educator at K-12 schools in Salt Lake  
*Spoke with a variety of age groups from a summer camp at the Utah Museum of Natural History for 5-6 year olds to high school science classes. Primary age group was 4<sup>th</sup> grade because weather is part of the 4<sup>th</sup> grade science core curriculum. After-school groups contained all ages. Topics ranged from snow, to general weather and processes, to providing tours of the DOW radar truck.*
- 2005 Teaching Assistant for Severe and Unusual Weather class at University of Oklahoma  
*Taught two class sessions and graded papers.*

## PROFESSIONAL AFFILIATIONS

Member of the National Association of Geoscience Teachers since 2013.

Member of the American Geophysical Union since 2006.

Member of the American Meteorological Society since 2000.