# DANA M. TOBIN

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# EDUCATION

#### PhD Student in Meteorology and Atmospheric Science The Pennsylvania State University – University Park PA

3.81 Cumulative GPA	
<ul> <li>NASA Pennsylvania Space Grant Graduate Fellow</li> </ul>	2017
Master of Science in Meteorology	2016
The Pennsylvania State University – University Park, PA	
3.77 Cumulative GPA	
<ul> <li>Distinguished Master's Thesis Award</li> </ul>	2016
Bachelor of Science in Meteorology, with Distinction	2014
The Pennsylvania State University – University Park, PA	
3.81 Cumulative GPA – Dean's List, College of Earth and Mineral Sciences	
<ul> <li>John A. Dutton Award in Atmospheric Dynamics</li> </ul>	2014
John C. and Marilyn B. Redmond Scholarship	2013
<ul> <li>Robert Case Memorial Scholarship</li> </ul>	2013
Western Connecticut State University – Danbury, CT	
3.89 Cumulative GPA – Dean's List, School of Arts and Sciences	

# PUBLICATIONS

- Tobin, D. M., M. R. Kumjian, 2017: Polarimetric Radar and Surface-Based Precipitation Type Observations of Ice Pellet to Freezing Rain Transitions. Wea. Forecasting, in preparation.
- Van Den Broeke, M. S., D. M. Tobin, and M. R. Kumjian, 2016: Synoptic and Polarimetric Radar Observations of the 2-3 March 2014 Winter Storm in the Southern United States. Wea. Forecasting, 31, 1179-1196.
- Markowski, P. M., Y. P. Richardson, M. R. Kumjian, A. K. Anderson-Frey, J. G. Jimenez, B. T. Katona, A. M. Klees, R. S. Schrom, and D. M. Tobin, 2015: Comments on "Observations of Wall Cloud Formation in Supercell Thunderstorms during VORTEX2". Mon. Wea. Rev., 143, 4278-4281.

# **RESEARCH EXPERIENCE**

#### **Research & Teaching Assistant**

Matthew Kumjian, Assistant Professor of Meteorology

Observational and polarimetric radar modeling research of winter storms producing ice pellets. Teaching Assistant for METEO 003, 005, 414, and 437.

#### Independent Studies – Graduate Level

Created MATLAB scripts and functions for calculating polarimetric radar variables of liquid, ice, and mixed phase spheroids of various sizes, shapes, and temperatures.

Dual-frequency radar analysis of a storm with DOW 7 X-band and State College S-band radar data.

### **Research Project Assistant**

Ludmil Zikatanov, Professor of Mathematics

Developed an edge average finite element scheme for the iFEM package in MATLAB.

# Student Volunteer, National Weather Service, State College, PA

#### Richard Grumm, Science and Operations Officer

Wrote case studies of severe weather events using polarimetric radar data.

# VOLUNTEERING AND OUTREACH

PSU Dual-pol Radar for Outreach Precipitation Studies (PSU-DROPS) Volunteer September – October 2014 Assisted with outreach activities for undergraduate and middle school students involving the DOW 7 radar.

# Penn State Weather Camp Counselor

Supervised and assisted high school students with hands-on weather-related activities.

# WCSU Bridge Program Student Mentor

Assisted middle school students in creating their own weather forecast video. Supervised trips to local radio and television stations.

#### Fall 2014

June 2013

July – August 2013

August 2014 – present

May – August 2013

September – November 2010