

Randy J. Chase

Department of Atmospheric Sciences
University of Illinois at Urbana-Champaign
Natural History Building
1301 W. Green St.
Urbana, IL 61801

Education

State University of New York, The College at Brockport, Brockport, NY August 2012 – May 2016
B.S. Double major: Meteorology, Water Resources
Minor in Mathematics
Summa Cum Laude

University of Illinois at Urbana-Champaign, Urbana, IL August 2016 – May 2018
M.S. Atmospheric Science

University of Illinois at Urbana-Champaign, Urbana, IL May 2018 – present
PhD Atmospheric Science

Honors and Awards

NASA Earth and Space Science Graduate Fellowship Fall 2017, 2018, 2019
The Father James B. Macelwane Annual Award in Meteorology (AMS) Fall 2016
The Chancellor's Award of Student Excellence (SUNY) Spring 2016
The School of Science and Mathematics Undergraduate Award (SUNY Brockport) Spring 2016
The David S. Johnson Endowed Undergraduate Scholarship (AMS) Fall 2015
Leader of the Year, United States Tennis Association Fall 2015

Research Experience

PhD Atmospheric Science May 2018 – present
• Improving global retrievals of ice and snow. Advisers: Stephen W. Nesbitt, Greg M. McFarquhar

M.S. Atmospheric Science August 2016 – May 2018
• Triple frequency radar snowfall prop. retrievals. Advisers: Greg M. McFarquhar, Stephen W. Nesbitt

Penn State Climate/Meteorology REU Summer 2015
• Ozone enhancements during GOAMAZON. Advisers: Jose D. Fuentes, Tobias Gerken

Penn State Climate/Meteorology REU Summer 2014
• Ozone enhancements during GOAMAZON Advisers: Jose D. Fuentes, Tobias Gerken

Work Experience

Graduate Teaching Assistant, University of Illinois at Urbana-Champaign Spring 2017
• ATMS 140: Climate and Global Change

Undergraduate Teaching Assistant, SUNY Brockport Fall 2015
• Introduction to Meteorology Lab

Mathematics Tutor (SUNY Brockport) February 2014 – May 2016
• Pre-Calculus, Calculus 1, 2, 3 Ordinary Differential Equations, and Linear Algebra

Publications

Chase, R. J., Finlon, J. A., Borque, P., McFarquhar, G. M., Nesbitt, S. W., Tanelli, S., Sy, O. O., Durden, S. L. and Poellot, M. 2018: Evaluation of triple-frequency radar retrieval of snowfall properties using coincident airborne in-situ observations during OLYMPEX. *Geophys. Res. Lett.*, 45, 5752 – 5760.

Tridon, F., Battaglia, A., **Chase, R. J.**, Turk, J., Leinonen, J., Kneifel, S., Mroz, K., Finlon, J. A., Bansemer, A., Tanelli, S., Heymsfield, A., Nesbitt, S. W. 2019: The microphysics of stratiform precipitation during OLYMPEX: compatibility between 3-frequency radar and airborne in situ observations. *Journal of Geophysical Research Atmospheres*, *accepted*.

Leinonen, J., Lebsock, M. D., Tanelli, S., Sy, O. O., Dolan, B., **Chase, R. J.**, Finlon, J. A., von Lerber A. & Moisseev, D. 2018: Retrieval of snowflake microphysical properties from multi-frequency radar observations. *Atmospheric Measurement Techniques*, 11, 5471 – 5488.

Gerken, T., Wei, D., **Chase, R. J.**, Fuentes, J. D., Schumacher, C., Machado, L. A., . . . Trowbridge, A. M., 2016: Downward transport of ozone rich air and implications for atmospheric chemistry in the Amazon rainforest. *Atmospheric Environment*, 124, 64-76.

Presentations

Chase, R. J. 2018: Behind the camera and beyond the greenscreen: A look at your everyday weather forecast. American Chemical Society (Lake and Ashtabula County section) Invited Presentation, oral presentation, Cleveland, OH, 20 July 2018.

Chase, R. J., Borque, P., Finlon, J., Nesbitt, S. W., McFarquhar, G. M. and Dolan, B. 2018: In-situ and radar investigation of snow aggregation in Northwest Midlatitude Cyclones. American Meteorological Society conference on cloud physics and atmospheric radiation, Vancouver, British Columbia, Canada, oral presentation, 8 – 13 July 2018. [Link](#)

Leinonen, J., Lebsock, M. D., Tanelli, S., Sy, O. O., Dolan, B., **Chase, R. J.** and Finlon, J. 2017: Triple-frequency radar retrievals of snowfall properties from the OLYMPEX field campaign. American Geophysical Union Fall Meeting, New Orleans, LA, poster presentation, 11 – 15 December 2017.

Nesbitt, S. W., **Chase, R. J.**, Finlon, J., Borque, P. and McFarquhar, G. 2017: Evaluation of GPM algorithm assumptions using GPM-GV data. Precipitation Measurement Mission Science Team Meeting, San Diego, CA, oral presentation, 16 – 20 October 2017.

Chase, R. J., Nesbitt, S. W., McFarquhar, G. M., Borque, P., Finlon, J., Tanelli, S., and Poellot, M. 2017. Evaluation of triple-frequency retrieval of snowfall properties using coincident airborne in-situ and radar observations collected during OLYMPEX. American Meteorological Society Radar Conference, Chicago, IL, poster presentation, 28 August – 1 September 2017.

Chase, R. J., McFarquhar, G. M., Nesbitt, S. W., Borque, P., Poellot, M. R., Heymsfield A. J., and Bansemer, A., 2016: Microphysical Measurements during OLYMPEX. Precipitation Measurement Mission Science Team Meeting, Houston, TX, poster presentation, 24-27 October 2016.

Chase, R. J., Fuentes, J. D., Gerken, T., Wei, D., Schumacher, C., Machado, L. A., Nascimento dos Santos, R., and Springston, S., 2016: Convection and redistribution of tropospheric ozone in central Amazonia. 8th Annual Symposium on Aerosol, Cloud and Climate Interactions at the 96th AMS annual meeting, New Orleans, LA, poster presentation, January 2016.

Chase, R. J., Fuentes, J. D., and Gerken, T., 2015: Downward transport of ozone due to convection near Manaus, Brazil. 14th Annual AMS Student Conference, Phoenix, AZ, poster presentation, January 2015.

Extracurricular Activities

American Meteorological Society (AMS) Member January 2014 – present

- A scientific and professional organization promoting and disseminating information about atmospheric, oceanic and hydrologic sciences.

Department of Atmospheric Sciences Student Organization, Treasurer August 2017 – August 2018

- Organized graduate student/faculty events and served as liaison between graduate students and faculty

Student Mentor, University of Illinois, at Urbana-Champaign Fall 2016, Fall 2018

- Mentored an Undergraduate student on topics such as research and graduate school

Sports Leadership Certification

Spring 2015

- Leadership program to build leadership in sports and in the community

Tennis Club President

Fall 2014 – May 2016

- Organize and run team practices and matches

Computer Experience

PYTHON, MATLAB, UNIX, FORTRAN, HTML, Microsoft Office Suite