M**elinda T. Berman**

Department of Atmospheric Sciences

University of Illinois at Urbana-Champaign

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Education

**MS** University of Illinois at Urbana-Champaign Exp. May 2023

Atmospheric Sciences

Advisors: Drs. Stephen Nesbitt and Robert (Jeff) Trapp

**BS** University of California, Los Angeles June 2021

Atmospheric, Oceanic and Environmental Sciences

Faculty Mentor: Dr. Pablo Saide

Research Experience

**Graduate Research Assistant**, Univ. of Illinois at Urbana-Champaign 2021-

Advisors: Drs. Stephen Nesbitt and Robert (Jeff) Trapp

**Undergraduate Researcher**, Univ. of California, Los Angeles 2019-2021

Faculty Mentor: Dr. Pablo Saide

**Naval Research Enterprise Internship Program,**

US Naval Research Laboratory Monterey, CA 2019, 2020, 2021

Mentor: Dr. David Peterson

Field Experience

**Fire Influence on Regional to Global Environments**

**and Air Quality (FIREX-AQ)**

**Propagation, Evolution and Rotation in Linear Systems (PERiLS)**

Publications

**Berman, M. T.,** X. Ye, L.H. Thapa, D.A. Peterson, E.J. Hyer, A.J. Soja, E.M. Gargulinski, I. Csiszar, C.C. Schmidt, P.E. Saide. Quantifying burned area of wildfires from polar-orbiting and geostationary satellite active-fire detections, *International Journal of Wildland Fire.* (Submitted for review)

Grover, M. A., R.J. Trapp, S.W. Nesbitt, K.A. Kosiba, L. Di Girolamo, K.M. Bedka, **M.T. Berman.** Observational support of the relationship between midlevel updraft characteristics and overshooting tops. *Journal of Geophysical Research: Atmospheres.* (in review)

Selected Scientific Presentations

**Berman M**., X. Ye, L. Thapa, D. Peterson, E. Hyer, A. Soja, E. Gargulinski, I. Csiszar, C. Schmidt, P. Saide, *Quantifying Burned Area of Wildfires from Satellite Active Fire Detections.* American Geophysical Union Fall Meeting, New Orleans, LA, 17 Dec 2021, Abstract U55A-08, Student Engagement to Enhance Development: Outstanding Student Presentation Award Winners from Fall Meeting 2020 V.

**Berman M**., D. Peterson, W. Julstrom, M. Fromm, R. Servranckx, E. Hyer, J. Campbell, P.Saide, *Quantifying the Impact of Intense Pyroconvection on Stratospheric Aerosol Loading with a Multi-Year Inventory.* American Geophysical Union Fall Meeting, New Orleans, LA, 17 Dec 2021, Abstract A52F-02, Remote Sensing of Fire Processes and Biomass Burning (BB) Emissions I.

**Berman M**., P. Saide, X. Ye, L. Thapa, D. Peterson, E. Hyer, A. Soja, *Quantifying Burn Area of Wildfires from Satellite Active Fire Detections.* American Geophysical Union Fall Meeting, virtual, 9 Dec 2020, Abstract B044-04, Fire–Vegetation Interactions and Ecosystem Resilience in a Warmer World I.

Teaching Experience

**Undergraduate Learning Assistant**: Univ. of California, Los Angeles

**Atmospheric and Oceanic Sciences 101:**  2021

Fundamental of Atmospheric Thermodynamics and Dynamics

**Chemistry 20B:**  2019

Chemical Energetics and Change

Honors and Awards

**AGU Outstanding Student Presentation Award**  2020

**Undergraduate Research Scholars Program** 2020-2021

Programming Skills

MATLAB, Python

Machine Learning: Python, Sci-Kit Learn

Professional Memberships

American Geophysical Union

American Meteorological Society

Press Coverage

Spokane, WA Local News, 8-8-19

<https://www.krem.com/article/weather/air-quality/nasa-using-planes-to-study-spokane-area-wildfire-smoke/293-72fd9df9-c019-4867-9755-668293f47896>

Seattle Times, Seattle, Washington 8-11-19

https://www.seattletimes.com/seattle-news/environment/washington-wildfire-smoke-just-triggered-a-thunderstorm-nasa-researchers-flew-through-the-middle-of-it/