CONTACT

jbukowsk@colostate.edu

RESEARCH INTERESTS

- Convective Cloud Systems & Storm Dynamics
- Atmospheric Aerosol & Cloud Microphysics
- (Extra)terrestrial Mineral Dust
- Convective Dust Storms (Haboobs)
- Mesoscale Modeling & Ensemble Modeling
- Statistical Applications in the Geosciences
- Precipitation Extremes

Jennie Bukowski, Ph.D.

Curriculum Vitae

Last Updated: January 2026

BIOSKETCH

My background is quite eclectic: before becoming an atmospheric scientist, I studied the humanities, taught ESL abroad, and even worked in a virology laboratory. I'm a storms scientist with an interest in convection at all scales and environments, from the tropics to dryland deserts. My research at Colorado State University involves numerical modeling and ensemble modeling of aerosol-cloud-environment and land surface interactions, storm dynamics, and cloud microphysics. I am currently on the science team of the NASA Investigation of Convective Updrafts (INCUS) Earth Venture Mission, set to launch in late 2026. As part of INCUS, I contribute simulations to the high-resolution model database of over 1 million tracked updrafts (which trains the flagship algorithm) and work on research related to convective mass flux, tropical storm anvils, and storm environments.

EDUCATION

Colorado State University – *Ph.D. - Atmospheric Science (2021)*
University of Michigan – *M.S. - Atmospheric, Oceanic, and Space Sciences (2016)*
University of Wisconsin – *B.S. - Russian Language and Literature (2011)*
B.S. - History: Europe and Modern Worlds (2011)

PUBLICATIONS

1. Singh, I., **J. Bukowski**, P.J. Marinescu, L.D. Grant, and S.C. van den Heever, 2025: *How Spatially Variable are Tropical and Subtropical Convective Environments?* GRL, doi.org/10.1029/2025GL116613
2. Leganés, L.J., S. Prasanth, A. Navarro, J. Turk, G. Lee, **J. Bukowski**, P. Marinescu, I. Singh, Z. Haddad, and F.J. Tapiador, 2025: *Machine Learning-Based Forecasting of Ice Water Path for Storm Detection and Tracking Using Geostationary Infrared and Passive Microwave Data.* Earth and Space Science, doi.org/10.22541/essoar.174526060.08790106/v1
3. Freeman, S.W., **J. Bukowski**, L.D. Grant, P.J. Marinescu, J.M. Park, S.M. Hitchcock, S.M. Neumaier, and S.C. van den Heever, 2025: *Characterizing Thermodynamic Observations from Unshielded Multirotor Drone Sensors.* EGUsphere, doi.org/10.5194/egusphere-2024-2425
4. Marinescu, P.J., S.C. van den Heever, L.D. Grant, **J. Bukowski**, and I. Singh, 2024: *How Much Convective Environment Subgrid Spatial Variability Is Missing Within Atmospheric Reanalysis Data Sets?.* GRL, doi.org/10.1029/2024GL111856
5. Grant, L.D., B. Kirsch, **J. Bukowski**, N.M. Falk, C.A. Neumaier, M. Sakradzija, S.C. van den Heever, and F. Ament, 2024: *How Variable are Cold Pools?.* GRL, doi.org/10.1029/2023GL106784
6. **Bukowski, J.**, and S.C. van den Heever, 2022: *The Impact of Land Surface Properties on Haboobs and Dust Lofting*. JAS, doi.org/10.1175/JAS-D-22-0001.1
7. Saleeby, S.M., B. Dolan, **J. Bukowski**, K. Van Valkenburg, S.C. van den Heever, and S.A. Rutledge, 2022: *Assessing Rain Drop Breakup Parameterizations using Disdrometer Observations*. JAS, doi.org/10.1175/JAS-D-21-0335.1
8. **Bukowski, J.**, and S.C. van den Heever, 2021: *Direct Radiative Effects in Haboobs*. JGR-Atmospheres, doi.org/10.1029/2021JD034814
9. Grant, L.D., S.C. van den Heever, Z.S. Haddad, R.L. Storer, D.J. Posselt, **J. Bukowski**, O.O. Sy, and G.L. Stephens, 2021: *The Relationship between Vertical Velocity and Microphysical Process Rates in Deep Convection*. JAS, doi.org/10.1175/JAS-D-21-0035.1
10. van den Heever, S.C., L.D. Grant, S.W. Freeman, P.J. Marinescu, J. Barnum, **J. Bukowski**, and Co-Authors, 2021: *The Colorado State University Convective CLoud Outflows and UpDrafts Experiment (C^3LOUD-Ex).* BAMS, doi.org/10.1175/BAMS-D-19-0013.1
11. **Bukowski, J.**, and S.C. van den Heever, 2020: *Convective Distribution of Dust over the Arabian Peninsula: The Impact of Model Resolution*. ACP, doi.org/10.5194/acp-20-2967-2020
12. Posselt, D.J., F. He, **J. Bukowski**, and J.S. Reid, 2019: *On the Relative Sensitivity of a Tropical Deep Convective Storm to Changes in Environment and Cloud Microphysical Parameters.* JAS, doi.org/10.1175/JAS-D-18-0181.1
13. Miller, S.D., L. Grasso, Q. Bian, S. Kreidenweis, J. Dostalek, J. Solbrig, **J. Bukowski**, S.C. van den Heever, Y. Wang, X. Xu, J. Wang, A. Walker, T.-C. Wu, M. Zupanski, C. Chiu, and J.S. Reid, 2019: *A Tale of Two Dust Storms: Analysis of a Complex Dust Event in the Middle East.* Atmos. Meas. Tech., doi.org/10.5194/amt-12-5101-2019

Jennie Bukowski

Curriculum Vitae

PUBLICATIONS (CONTINUED)

14. Saleeby, S.M., S.C. van den Heever, **J. Bukowski**, A.L. Walker, J.E. Solbrig, S.A. Atwood, Q. Bian, S.M. Kreidenweis, Y. Wang, J. Wang, and S.D. Miller, 2019: *The Influence of Simulated Surface Dust Lofting Erodible Fraction on Radiative Forcing.* ACP, doi.org/10.5194/acp-19-10279-2019
15. **Bukowski, J.**, D.J. Posselt, J.S. Reid, and S.A. Atwood, 2017: *Modes of Vertical Thermodynamic and Wind Variability over the Maritime Continent.* ACP, doi.org/10.5194/acp-2016-843

MANUSCRIPTS IN PREPARATION

- **Bukowski, J**., D.L. Swain, and J.M. Done, 2026: *A 45-Year Climatology of Organized Convection and Precipitation Extremes in the North American Monsoon. [In-prep for JGR]*
- **Bukowski, J**., D.L. Swain, J.M. Done, 2026*: Gulf Moisture Surges are Becoming Drier: Implications for the North American Monsoon. [In-prep for GRL]*
- **Bukowski, J**., S. Saleeby, R. Chase, D. Posselt, B. Dolan, L. Grant, G. Leung, P. Marinescu, K. Rasmussen, I. Singh, R. Storer, S.C. van den Heever, 2026*: Sensitivity of Modeled Tropical Anvils to Ice Aggregation. [In-prep for GRL]*
- **Bukowski, J**., P. Marinescu, I. Singh, L. Grant, R. Storer, D. Posselt, G. Leung, S. Freeman, S.C. van den Heever, 2026*: What Controls Storm Anvil Thickness? [In-prep]*
- **Bukowski, J.,** P.J. Marinescu, I. Singh, L. Grant, R. Storer, G. Leung, and S.C. van den Heever: *Connecting Convective Mass Flux to Tropical Anvil Cloud Properties. [In-prep]*
- Freeman, S.W., L.D. Grant, C.A. Neumaier, **J. Bukowski**, and S.C. van den Heever, 2026: *A 3D-Printed Instrument Chimney for Drones. [In-prep for AMT]*
- S. Prasanth, Z. S. Haddad, J. Susiluoto, P.J. Marinescu, **J. Bukowski**, I. Singh, and S.C. van den Heever: *Local Properties of Convection Inferable from the Environmental State. [In Prep for GRL]*

TEACHING EXPERIENCE

CSU/ATS-350 – Introduction to Weather & Climate (Fort Collins, CO)**:** *Instructor*	Fall 2025
CSU/ATS-712 – Cloud Dynamics (Fort Collins, CO): *Teaching Assistant*	Spring 2025
CSU/ATS-351 - Weather and Climate Laboratory (Fort Collins, CO): *Instructor*	Fall 2019
CSU/ATS-350 – Introduction to Weather & Climate (Fort Collins, CO)**:** *Graduate Teaching Assistant*	Fall 2019
Balalaika and Domra Association of America: *Beginning Domra Instructor*	2017-Present
Sherman Middle School - Schools of Hope (Madison, WI)**:** *ESL Tutor*	2010-2011
UW Greater University Tutoring Service (Madison, WI)**:** *Russian Language Tutor*	2010-2011
Sunshine Project – Bereyozka Orphanage (Saint Petersburg, Russia)**:** *ESL Teacher & Counselor*	2010
West High School (Waukesha, WI)**:** *German I & II Student Instructor*	2005-2006

RESEARCH EXPERIENCE

Colorado State University – Dept. of Atmospheric Science

Research Scientist II (2024 - Present) & Postdoctoral Scholar (2023-2024)

Advisor: Sue van den Heever – Investigation of Convective Updrafts (INCUS) NASA Earth Venture Satellite Mission

-Part of the INCUS Science Team Modeling Group, which is creating an LES simulation database of tropical convection in diverse environments as a training set for the INCUS convective mass flux (CMF) satellite retrieval algorithm. Database contains over 60 100m RAMS and WRF (Thompson & Morrison) simulations comprising 1,000,000+ identified and tracked convective updrafts.

-Studying the relationship between modeled CMF, storm anvil properties, and the environment using image processing in the tobac tracking framework.

-Investigating microphysical relationships to anvil properties, including ice-ice collision efficiencies and their impact on anvil radiation interactions.

-Contributing to the flagship INCUS algorithm (2B-FLUXES) to retrieve CMF from measured differences in reflectivity

RESEARCH EXPERIENCE (CONTINUED)

Institute of the Environment & Sustainability - University of California, Los Angeles
National Center for Atmospheric Research – Capacity Center for Climate & Weather Extremes
Postdoctoral Scholar (2021–2023)
Advisors: Daniel Swain & James Done – Connectivity of Extreme Precipitation Events

-Developed a 45-year historical database of identified and tracked Mesoscale Convective Systems (MCS's) / organized storms and identified the location and characteristics of extreme rainfall events in the Southwestern US monsoon.

-identifying environmental factors responsible for extreme monsoonal precipitation, investigating land surface / soil moisture feedbacks, sequential thunderstorms, precipitation whiplash between "non-soon" drought years and heavy rainfall monsoons.

-Quantified properties of moisture surges from the Gulf of California into the North American Monsoon region and how these gulf surges have changed over time.

Colorado State University – Dept. of Atmospheric Science
Graduate Student Research Assistant (2016-2021)
Advisor: Sue van den Heever - Cloud Processes & Mesoscale Modeling

-Worked on a multidisciplinary project to research the environmental factors responsible for the observed and simulated concentrations of aerosols in littoral zones.

-Investigated the radiative effects of mineral dust on cold pool (haboob) dynamics and higher order feedbacks.

-Created an ensemble of 120 idealized haboob simulations coupled to the Elementary Effects multivariate statistical method to rank the importance of different land surface factors on cold pool (haboob) evolution and maintenance.

-Studied the sensitivity of vertical dust transport in convective updrafts and the timing of dust uplift sources due to model resolution and cumulus parameterizations.

University of Michigan - Dept. of Climate & Space Sciences & Engineering
Graduate Student Research Assistant (2015-2016)
Advisor: Derek Posselt – Cloud Physics, Ensemble Modeling, & Statistical Methods

-Transformed observations of thermodynamic tropical variability into structure functions via principal component analysis, which were then used to perturb initial conditions in idealized Monte Carlo simulations of tropical deep convection to test the relative importance of the environment versus microphysical properties on rainfall rates.

-Investigated the covariance between meteorology, biomass burning, and smoke aerosol distributions over the Maritime Continent.

Naval Research Laboratory – Monterey
Naval Research Enterprise Internship Program (NREIP) Intern (2015,2018)
Mentors: Jeff Reid & Annette Walker

-Experimented with statistical methods for constraining tropical convection thermodynamic variability.

-Led a mesoscale dust model intercomparison project with COAMPS, RAMS, and WRF-Chem.

University of Michigan - Great Lakes Multidisciplinary Design Team
Atmospheric Chemist (2015-2016)
Advisors: Allison Steiner & Derek Posselt

-Used WRF-Chem to model Great Lakes ozone formation and transport at coastal boundary layer transitions and determined the sensitivity of model output to future projections of anthropogenic NOx emissions.

Jennie Bukowski

Curriculum Vitae

FIELD WORK

Testing INCUS Methods Experiment – Suborbital preLaunch Investigations of Convective Evolution (TIME-SLICE)

Radiosonde Scientist (Summer 2024)

Principal Investigator: Brenda Dolan

-Launched soundings on IOP days to classify the storm environment for the ground radar study meant to test different instrument setups and sample different storm types to collect the best data to validate the INCUS algorithm and products during the future INCUS calibration/validation campaign.

-Taught CSU students the basics of radiosonde technology, the iMet system, proper launch procedures

-Installed a NASA PIERS rain gauge and disdrometer at the CSU Semi-Arid Grassland Research site

CSU Convective Cloud Outflows & UpDrafts Experiment (C^3LOUD-Ex)

Drone Pilot & Field Research Scientist (Summer 2017)

Principal Investigator: Sue van den Heever

-Measured supercell updraft speeds with radiosondes and heterogeneities in cold pool properties of single-cell and multi-cell thunderstorms with drones.

-Managed the cross-calibration of multiple instrumentation platforms, including sensors on the drone fleet and surface station measurements.

-Quantified the accuracy of different sensor positions on the drones to locate optimal sampling locations.

CSU Upper-Air Soundings in Atmospheric Research Intercomparison Project

Radiosonde Instrumentation Specialist (Spring 2019)

Principal Investigator: Russ Schumacher

-Conducted radiosonde intercomparison experiments and analyzed measurements from the iMet and Vaisala systems to identify biases across platforms.

STUDENTS MENTORED / MENTORING GROUPS

PROmoting Geoscience Research, Education, and Success (PROGRESS) – NSF project to retain undergraduate women in STEM	2023-2024
-**Mia G.** – CSU environmental science / psychology major	
Cira/ATS Mentoring Pods (CAMP) – CSU alumni mentoring incoming CSU graduate students	2022-Present
-Jackson T. - CSU atmospheric science MS student	
-Anastasia T. - CSU atmospheric science MS student	
-**Bali S.** - CSU atmospheric science MS student	
-**Michelle K.** - CSU atmospheric science MS student	
Individual Mentoring (upon request)	
-**Connor L.** - CSU undergraduate interested in meteorology	2023
-**Aaron M.** - Northern Virginia Community College STEM undergraduate	2022-Present
-**Hannah H.** - CSU Chemistry undergraduate interested in research	2019
-Nathanael F. - CSU Math undergrad applying to grad programs in meteorology	2019
-Erica M. - CSU Mechanical engineering undergraduate	2019

ELECTED LEADERSHIP POSITIONS

Home Grown Food - *Board of Directors Member*	2024-Present
CSU Graduate Student Council - *Representative for the Dept. of Atmospheric Science*	2018-2021
Balalaika & Domra Association of America – Co-President, *Board of Directors Member*	2016-Present
AMS Local Chapter – Fort Collins Atmospheric Scientists (FORTCAST) - *Board of Directors Member*	2018-2019

AWARDS, ACHIEVEMENTS, AND HONORS

CSU Alumni Award (Silva Dias Award) – Outstanding Dissertation of the Year	2021
AMS Summer Policy Colloquium – National Science Foundation Awardee	2019
PNNL Aerosol Summer School Attendee	2019
CIRA-PRSE Graduate Fellowship	2016-2017
Naval Research Enterprise Internship Program	2015,2018
Michigan Geophysical Union Poster Award in Atmospheric Science	2016
The Michigan Engineer Featured Scientist	2016
Balalaika and Domra Association of America Scholarship	2014, 2015
School of Eclectic Art Award	2012
Wisconsin Regional Art Program State Award	2012
UW-Madison Distinctive Scholastic Achievement	2011
Wisconsin Academic Excellence Scholarship	2006-2010
UW-Madison Dean's List	2007, 2009, 2010
Cooper Power Systems Scholarship	2006, 2008-2010
Brady Academic All-Star	2006

SCIENTIFIC COMMUNITY INVOLVEMENT AND EDUCATIONAL OUTREACH

Letters to a Pre-Scientist (Virtual): *Letter Writer and Mentor*	2025
CSU ENvision Engineering Summer Program (Fort Collins, CO): *Severe Weather Presenter*	2025
CSU ATS Cultural Jamboree (Fort Collins, CO): *Presenter on Slavic Folk Music*	2025
AMS Beacon of Inclusivity *(AMS Meetings)*	2024-Present
CSU Diversity, Equity, and Inclusion Reading Group (Fort Collins, CO)**:** *Attendee*	2023-Present
Women in Science History Series (Virtual): *Writer / Creator*	2021
Loveland High School (Loveland, CO): *Severe Weather Presenter – 9th Grade Earth Science*	2020
Paper Editor & Writing Coach (Fort Collins, CO): *CSU Graduate Student with Dyslexia*	2019-2023
Werner Elementary (Fort Collins, CO): *Earth Day Volunteer*	2019
Altitude Elementary (Aurora, CO): *Science Demo Volunteer*	2019
Little Shop of Physics (Fort Collins, CO): *Science Demo Volunteer*	2017-2020, 2023
S. Christa McAuliffe STEM Academy (Greeley, CO): *Careers in STEM Presenter / Mentor*	2019
Colorado Climate Center – Weather and Science Day (Denver CO): *Science Demo Volunteer*	2018,2019
AMS 17th Annual Student Conference (Austin, TX): *Poster Judge*	2018
CSU Graduate Student Showcase (Fort Collins, CO): *Poster Judge & Volunteer*	2018,2019
CSU International Community Lunch (Fort Collins, CO): *Attendee*	2018-2019
Young Scientist Symposium on Atmospheric Research (Fort Collins, CO): *Aerosol Session Chair*	2017-2019
Fort Collins Teen Science Café (Fort Collins, CO): *Weather Drones Presenter*	2017
UM-CLaSP Ladies Lunch (Ann Arbor, MI): *Attendee*	2015-2016

OTHER COMMUNITY INVOLVEMENT

Growing Food Security (Fort Collins, CO): *Farm Volunteer*	2025-Present
Home Grown Food Colorado (Fort Collins, CO): *Volunteer*	2023-Present
The Growing Project (Fort Collins, CO): *Farm & Garden Volunteer*	2019
School is Cool Fundraiser (Fort Collins, CO): *Organizer, Volunteer*	2019-2020

Jennie Bukowski

Curriculum Vitae

TECHNICAL SKILLS

Regional (Mesoscale) Atmospheric Numerical Models: *WRF, WRF-Chem, RAMS, CM1*
Self-Built and Designed Models: *MEsoscale and Cloud model Coupled to Aerosol (MECCA)*
Self-Built Data Assimilation Models: *For 3D chaotic systems - Extended Kalman Filter, Ensemble Transform Kalman Filter, strong constraint 4D-variational adjoint model*
Radiation Models: *SBDART, BUGSrad, CRTM*
Forward Radar Models: *CRSIM, PAMS*
Advanced Ensemble Statistics and AI: *Morris-one-at-a-Time (MOAT), Latin Hypercube Sampling, Variance-Based Sensitivity Analysis and Statistical Emulators, PCA, Variance Inflation Factors*
WRF Source Code Modifications: *Adding variables & diagnostics, process rate output*
Programming Languages: *FORTRAN, MATLAB, NCL, Python, bash / shell scripting*
Computing: *Linux, very high-performance computing*
(Storm) Tracking Algorithms: *TOBAC, Prein-Maddox MCS Tracking, TrackPy*
Instrumentation: *International Met (iMet) radiosonde system & drone sensors, Vaisala radiosonde system, Davis Instruments Integrated Sensor Suite, Unmanned Aerial Systems - DJI Matrice 600 Pro*
FAA Part 107 Licensed UAS Drone Pilot
Languages: *English (native speaker), Russian (intermediate), German (intermediate), Mandarin Chinese (novice)*

CONFERENCE SESSION CONVENING

21st AMS Conference on Mesoscale Processes - Boise, ID, 2025
Session: The INCUS Mission: Convective Mass Flux, Updraft Dynamics, and Anvils

PANEL REVIEWS

NASA - PMMCCST24 Virtual, 2025
Precipitation Measurements Mission and CloudSat and Calipso Science Team Recompete

MEDIA APPERANCES

ARM Research Highlights (2022): "*Assessing raindrop breakup parameterizations using disdrometer observations"*
https://www.arm.gov/research/highlights/1147
Civil Eats (2022): "*A Wild, Windy Spring Is Creating a Soil Erosion Nightmare for Farmers" - Virginia Gewin*
https://civileats.com/2022/06/06/a-wild-windy-spring-is-creating-a-soil-erosion-nightmare-for-farmers
CSU Source (2019): *"CSU meteorologists have a field day at Rockies Weather and Science event" – Jayme Deloss*
https://engr.source.colostate.edu/csu-meteorologists-have-a-field-day-at-rockies-weather-and-science-event
CSU Atmos Source (2019): *"Inspiring young scientists: Atmos hosts 108 second-graders" – Jayme Deloss*
https://www.atmos.colostate.edu/2019/04/inspiring-young-scientists-atmos-hosts-108-second-graders
Rocky Mountain Collegian (2018): *"CSU Foothills Campus petitions against parking fees" - Emma Iannacone*
https://collegian.com/articles/news/2018/11/foothills-campus-petitions-against-parking-fees
Rocky Mountain Collegian (2017): *"Teen Science Café provides interactive education for FoCo students" - Casey Setash*
https://collegian.com/articles/aande/2017/09/teen-science-cafe-provides-interactive-education-for-foco-students
https://teensciencecafe.org/resources/teen-science-cafe-provides-interactive-education-for-foco-students/
The Michigan Engineer (2016): "*Modeling an Immensely Complicated System" – Joseph Yu*
https://jenniferjudgehensel.com/2016/10/20/the-michigan-engineer

FIRST AUTHOR PRESENTATIONS (I = INVITED, O = ORAL, P = POSTER)

- **Bukowski, J.**, P.J. Marinescu, I. Singh, L. Grant, R. Storer, G. Leung, and S.C. van den Heever: *Connecting Convective Mass Flux to Tropical Anvil Cloud Properties.*
  - INCUS Science Team Meeting, Fort Collins, CO, 2025 (O)
  - AGU 107th Annual Fall Meeting, New Orleans, LA, 2025 (P)
- **Bukowski, J.**, S. Saleeby, R. Chase, D. Posselt, B. Dolan, L. Grant, G. Leung, P. Marinescu, K. Rasmussen, I. Singh, R. Storer, S. van den Heever. *Sensitivity of Modeled Tropical Anvils to Ice Aggregation.*
  - EGU General Assembly, Vienna, Austria, 2026 (Submitted)
  - AMS 21st Conference on Mesoscale Processes, Boise, ID, 2025 (O)
  - NASA INCUS Science Team Meeting, Fort Collins, CO, 2024 (O)
  - AGU 106th Annual Fall Meeting, Washington, DC, 2024 (O)
- **Bukowski, J.**, P. J. Marinescu, I. Singh, L. D. Grant, G. R. Leung, and S. C. van den Heever: *Environmental Controls on Convective Mass Flux and Anvil Properties in the Tropics.*
  - AMS 104th Annual Conference, Baltimore, MD, 2024 (O)
- **Bukowski, J.**, and Co-Authors: *Chasing the Science of Storms with Drones*
  - CSU ENvision Engineering Summer Program, Fort Collins, CO, 2023 (I)
  - Colorado Drone Airshow - Research & Industry Showcase Day, Fort Collins, CO, 2023 (I)
  - Colorado Drone Airshow - Community Day, Fort Collins, CO, 2023 (I)
- **Bukowski, J.**, D. L. Swain, J. M. Done, and A. F. Prein: *Detection and Predictability of Convection and Extreme Precipitation in the North American Monsoon.*
  - AGU 104th Annual Fall Meeting, Chicago, IL, 2022 (O)
  - AMS 103rd Annual Conference, Denver, CO, 2023 (O)
- **Bukowski, J.**, and S. C. van den Heever: *Land Surface Impacts on Cold Pools, Haboobs, and Dust Lofting in Dryland Regions.*
  - AMS 103rd Annual Conference, Denver, CO, 2023 (O)
  - AGU 104th Annual Fall Meeting, Chicago, IL, 2022 (P)
- **Bukowski, J.**: *Modeling Convective Dust Storms: Aerosol Transport, Radiation, and Land Surface Effects.*
  - NOAA – Global Systems Laboratory Seminar, Boulder, CO, 2022 (I)
- **Bukowski, J.**: *Thunderstorms in Dryland Regions: Interactions with the Land Surface, Aerosol, and the Environment*
  - University of Utah – Dept. of Atmospheric Science Seminar, Salt Lake City, UT, 2022 (I)
- **Bukowski, J**., D. L. Swain, J. M. Done, A. F. Prein, and A. N. Ramos-Valle: *Connected Precipitation Extremes in the North American Monsoon.*
  - NCAR Postdoctoral Research Review, 2021 (O)
- **Bukowski, J.**, and S. C. van den Heever: *Direct Radiative Feedbacks in Haboobs.*
  - CSU Alumni Award Talk, Fort Collins, CO, 2021 (I)
  - AMS 18th Conference on Mesoscale Processes, Savannah, GA, 2019 (O)
  - AGU 100th Annual Fall Meeting, Washington, D.C., 2018 (O)

FIRST AUTHOR PRESENTATIONS (CONTINUED; I = INVITED, O = ORAL, P = POSTER)

- **Bukowski, J.**, S. C. van den Heever, J. S. Reid, A. L. Walker, S. M. Saleeby, D. Geiszler, and J. E. Solbrig: *Mesoscale Model Intercomparison of the "Missing" Persian Gulf Dust Plume.*
    - NREIP Summer Colloquium, Naval Research Laboratory, Monterey, CA, 2018 (O)
    - 8th Annual Young Scientist Symposium on Atmospheric Research, Fort Collins, CO, 2018 (O)
- **Bukowski, J.**, and S. C. van den Heever: *Relative Contributions of Convective and Non-Convective Dust Lofting over the Arabian Peninsula.*
    - AMS 98th Annual Conference, Austin, TX, 2018 (P)
    - CSU Graduate Student Showcase, Fort Collins, CO, 2017 (P)
- Freeman, S. W., and **J. Bukowski**: *Flying into Thunderstorms with Drones.*
    - Dean's Advisory Board Meeting - CSU Engineering, Fort Collins, CO, 2017 (I - presented by both authors)
- **Bukowski, J.**, D. J. Posselt, J. S. Reid, and S. A. Atwood: *Covariance of Thermodynamics and Maritime Continent Smoke Aerosols.*
    - AMS 97th Annual Conference, Seattle, WA, 2017 (O)
    - AGU 98th Annual Fall Meeting, San Francisco, CA, 2016 (O) (presented by J. S. Reid)
    - 6th Annual Young Scientist Symposium on Atmospheric Research, Fort Collins, CO, 2016 (O)
    - 10th Annual Earth System and Space Science Poster Conference, Boulder, CO, 2016 (P)
- **Bukowski, J.**, L. Fitzpatrick, S. Kawecki, Y. Li, A. Steiner, D. J. Posselt, and K. Richardville: *Modeled Sensitivity of Tropospheric Ozone to Planetary Boundary Layer Height in the Great Lakes Region.*
    - AMS 16th Annual Student Conference, Seattle, WA, 2017 (P)
- **Bukowski, J.**, L. Fitzpatrick, S. Kawecki, Y. Li, A. Steiner, and D. J. Posselt: *The Sensitivity of Surface Ozone Concentrations to Anthropogenic NOx Emissions in the Great Lakes Region*
    - Michigan Geophysical Union 13th Research Symposium, Ann Arbor, MI, 2016 (P, Award)
    - Colorado State University Graduate Student Showcase, Fort Collins, CO, 2016 (P)
- **Bukowski, J.**, D. J. Posselt, J. S. Reid, and S. A. Atwood**:** *An Evaluation and Constraint of Thermodynamic Boundary Conditions over the Maritime Continent.*
    - AMS 32nd Conference on Hurricanes and Tropical Meteorology, San Juan, Puerto Rico, 2016 (O)
    - AMS 15th Annual Student Conference, New Orleans, LA, 2016 (P)
    - AGU Graduate Virtual Poster Showcase, Washington, DC, 2015 (P)
    - NREIP Aerosol Section Colloquium, Naval Research Laboratory, Monterey, CA, 2015 (O)

HIGHER AUTHOR PRESENTATIONS (I = INVITED, O = ORAL, P = POSTER)

- P.J. Marinescu, G. Leung, I. Singh, **J. Bukowski**, L. Grant, R. Storer, K. Rasmussen, and S.C. van den Heever: *Sensitivity of Deep Convective Updraft Magnitudes to Horizontal Grid Spacing: From Kilometer Scales to LES Scales*
    - EGU General Assembly, Vienna, Austria, 2026 (Submitted)
- I. Singh, **J. Bukowski**, P. Marinescu, L. Grant, R. Storer, G. Leung, P. Sai, R. Schulte, B. Dolan, D. Posselt, K. Rasmussen, and S.C. van den Heever: *High-resolution Numerical Simulations of Tropical Convection for the NASA INCUS Mission.*
    - EGU General Assembly, Vienna, Austria, 2026 (Submitted)

HIGHER AUTHOR PRESENTATIONS (CONTINUED; I = INVITED, O = ORAL, P = POSTER)

- **J. Bukowski,** B. Dolan, P. Marinescu, R. Schulte, I. Singh, G. Leung, L. Grant, D. Posselt, C. Schumacher, R. Storer, K. Rasmussen, S.C. van den Heever: *High-Resolution Modeling and Evaluation for INCUS.*
    - INCUS Science Team Meeting, Fort Collins, CO, 2025 (O)
- D. Posselt, S.C. van den Heever, S. Tanelli, P. Kollias, K. Rasmussen, P. Partain, G. Stephens, R. Auth, **J. Bukowski**, and Co-Authors: *Observing Tropical Deep Convective Dynamics with NASA's INCUS Mission*
    - 37th AMS Conference on Hurricanes and Tropical Meteorology, San Diego, CA, 2026 (Submitted)
- N. Falk, **J. Bukowski**, P. Marinescu, I. Singh, L. Grant, R. Storer, G. Leung, and S.C. van den Heever: *How Closely Related are the Spatial Distributions of Updrafts, Clouds, and Precipitation?*
    - INCUS Science Team Meeting, Fort Collins, CO, 2025 (O)
- I. Singh, **J. Bukowski**, P.J. Marinescu, L.D. Grant, and S.C. van den Heever: *How Does Model Grid Spacing Affect the Horizontal Spatial Variability of Atmospheric Fields?*
    - INCUS Science Team Meeting, Fort Collins, CO, 2025 (O)
- P.J. Marinescu, **J. Bukowski**, I. Singh, L. Grant, R. Storer, G. Leung, and S.C van den Heever: *Processes Governing Convective Updraft Sensitivity to Grid Spacing*
    - INCUS Science Team Meeting, Fort Collins, CO, 2025 (O)
- T. Vukicevic, D. Posselt, **J. Bukowski**, P.J. Marinescu, I. Singh, L. Grant, R. Storer, G. Leung, and S.C van den Heever: *Sensitivity of Convection to the Environment within Local Neighborhoods.*
    - INCUS Science Team Meeting, Fort Collins, CO, 2025 (O)
- G.R. Leung, **J. Bukowski**, S.W. Freeman, L.D. Grant, P.J. Marinescu, I. Singh, R. Storer, K. Rasmussen, D.J. Posselt, and S.C. van den Heever: *How does Convective Mass Flux Vary with Background Moisture?*
    - INCUS Science Team Meeting, Fort Collins, CO, 2025 (O)
- P.J. Marinescu, **J. Bukowski**, I. Singh, L. Grant, R. Storer, G. Leung, P. Sai, R. Schulte, B. Dolan, D. Posselt, K. Rasmussen, and S. C. van den Heever: *High-resolution Numerical Simulations of Tropical Convection for the NASA INCUS Mission.*
    - AGU 107th Annual Fall Meeting, New Orleans, LA, 2025 (P)
    - AMS - 106th Annual Meeting, Houston, TX, 2026 (O)
- G.R. Leung, **J. Bukowski**, S.W. Freeman, L.D. Grant, P.J. Marinescu, I. Singh, R. Storer, K. Rasmussen, D.J. Posselt, and S.C. van den Heever: *How Sensitive Is the Relationship Between Moisture and Convective Mass Flux to Grid Spacing?*
    - AMS - 106th Annual Meeting, Houston, TX, 2026 (O)
- S. Prasanth, Z.S. Haddad, J. Susiluoto, P. Marinescu, **J. Bukowski**, I. Singh, L. Grant, and S.C. van den Heever: *Evaluation of Different Candidate Indicators of Convective Intensity in a Local Convective Neighborhood.*
    - AGU 107th Annual Fall Meeting, New Orleans, LA, 2025 (P)
    - EGU General Assembly, Vienna, Austria, 2026 (Submitted)

HIGHER AUTHOR PRESENTATIONS (CONTINUED; I = INVITED, O = ORAL, P = POSTER)

- S.C. van den Heever, D. Posselt, S. Tanelli, P. Kollias, K. Rasmussen, P. Partain, G. Stephens, R. Auth, **J. Bukowski**, and Co-authors: *Unraveling Tropical Storm Dynamics with NASA's INCUS Mission.*
    - AGU 107th Annual Fall Meeting, New Orleans, LA, 2025 (O)
- I. Singh, **J. Bukowski**, P. Marinescu, L. Grant, R. Storer, G. Leung, and S.C. van den Heever: *How Does Model Grid Spacing Affect the Horizontal Spatial Variability of Simulated Atmospheric Fields?*
    - AGU 107th Annual Fall Meeting, New Orleans, LA, 2025 (P)
- S.C. van den Heever, D. Posselt, S. Tanelli, P. Kollias, K. Rasmussen, P. Partain, G. Stephens, R. Auth, J. Bukowski, and Co-authors: *Tropical Convective Storm Dynamics through the Lens of the NASA INCUS Mission.*
    - AMS - 106th Annual Meeting, Houston, TX, 2026 (O)
- P.J. Marinescu, B. Dolan, **J. Bukowski**, I. Singh, L. Grant, R. Storer, D. Posselt, K. Rasmussen, and S.C. van den Heever: *Is Deep Convective Cloud Microphysics Sensitive to Grid Spacing?*
    - AMS - 106th Annual Meeting, Houston, TX, 2026 (O)
- Z.S. Haddad, S.C. van den Heever, S. Prasanth, S. Hristova-Veleva, D. Blair, P. Marinescu, **J. Bukowski**, S. Freeman, and D. Posselt: *Estimation of vertical wind speed from INCUS radar reflectivity measurements in convective updrafts and of storm-wide vertical air mass flux from INCUS radar and radiometer measurements.*
    - European Space Agency - Living Planet Symposium, Vienna, Austria, 2025 (Submitted)
- I. Singh, **J. Bukowski**, P. Marinescu, L. Grant, G. Leung, and S.C. van den Heever: *Dependence of horizontal spatial variability on model grid spacing.*
    - AMS 21st Conference on Mesoscale Processes, Boise, ID, 2025 (O)
- S.C. van den Heever, R. Auth, **J. Bukowski**, R. Chase, B. Dolan, S. Freeman, L. Grant, Z. Haddad, P. Kollias, G. Leung, P. Marinescu, D. Posselt, K. Rasmussen, R. Schulte, I. Singh, R. Storer, and S. Tanelli: *Gaining Insights into Tropical Storm Dynamics through the Lens of the NASA INCUS Mission.*
    - AMS 21st Conference on Mesoscale Processes, Boise, ID, 2025 (O)
- G. Leung, **J. Bukowski**, L.D. Grant, S.W. Freeman, P.J. Marinescu, I. Singh, R. Storer, and S.C. van den Heever: *Resolving convective mass flux across environments and storm organization.*
    - Gordon Research Conference - Radiation and Climate, Lewiston, ME, 2025 (O,P)
- P. J. Marinescu, G. Leung, I. Singh, **J. Bukowski**, L. Grant, R. Storer, and S.C. van den Heever: *Strong Updraft Pathways: A Regional, High-Resolution Modeling Perspective.*
    - AMS 21st Conference on Mesoscale Processes, Boise, ID, 2025 (P)
- P. J. Marinescu, **J. Bukowski**, I. Singh, L. Grant, R. Storer, and S.C. van den Heever: *Predicting Convective Environment Variability and Extremes from Reanalysis-Scale Data.*
    - AMS 21st Conference on Mesoscale Processes, Boise, ID, 2025 (O)
- S.C. van den Heever, Z. Haddad, S. Tanelli, D. Posselt, K. Rasmussen, G. Stephens, R. Auth, **J. Bukowski**, and Co-Authors: *The NASA INCUS Mission: Pursuing Tropical Convective Storms.*
    - IEEE International Geoscience and Remote Sensing Symposium, Brisbane, Australia, 2025 (Submitted)

HIGHER AUTHOR PRESENTATIONS (CONTINUED; I = INVITED, O = ORAL, P = POSTER)

- T. Vukicevic, S. Prasanth, D. Posselt, P. Marinescu, **J. Bukowski**, I. Singh, S.C. van den Heever and Z. Haddad: *Sensitivity of convection to environment within local neighborhoods.*
    - EGU – 2025 Annual Meeting, Vienna, Austria, 2025 (P)
- S.C. van den Heever, R. Auth, **J. Bukowski**, R. Chase, B. Dolan, S. Freeman, L. Grant, Z. Haddad, P. Kollias, G. Leung, P. Marinescu, D. Posselt, K. Rasmussen, R. Schulte, I. Singh, and R. Storer: *Convective Storms in the Southern Hemisphere through the Lens of the INCUS Mission.*
    - 14th International Conference on Southern Hemisphere Meteorology and Oceanography (ICSHMO), Cape Town, South Africa, 2025 (O)
- G.R. Leung, **J. Bukowski**, L.D. Grant, P.J. Marinescu, I. Singh, R. Storer, and S.C. van den Heever: *Convective Mass Flux and Surface Precipitation Across Tropical Convective Life Cycles.*
    - AMS - 105th Annual Meeting, New Orleans, LA, 2025 (O)
- C.A. Neumaier, L.D. Grant, S.C. van den Heever, **J. Bukowski**, S.W. Freeman, B.D. Ascher, T.W. Barbero, J. A. Escobedo, N.M. Falk, G.R. Leung, A.C. Mazurek, E.A. Sherman, D.S. Veloso-Aguila, P.J. DeMott, S.M. Kreidenweis, R.J. Perkins, and E.A. Stone: *Near-surface Atmospheric Variability in Pre- and Post-convective Environments as Observed by Small Uncrewed Aerial Systems.*
    - AMS - 105th Annual Meeting, New Orleans, LA, 2025 (O)
- S.W. Freeman, C. Kwinta, J.-D. Goode, K. Britton, R. Auth, R. Schulte, **J. Bukowski**, K. Rasmussen, and S.C. van den Heever: *Quantifying the Links Between Convection and Environment through Cloud Tracking.*
    - AMS - 105th Annual Meeting, New Orleans, LA, 2025 (I)
- B. Dolan, K. Rasmussen, P. Kollias, E. Luke, V. Chandrasekar, I. Arias Hernandez, B.P. Treserras, S.C. van den Heever, R. Auth, C. Bekenmeier, **J. Bukowski**, and Co-Authors: *Testing INCUS Methods Experiment – Suborbital preLaunch Investigation of Convective Evolution (TIME-SLICE).*
    - 51st Annual USNC-URSI National Radio Science Meeting, Boulder, CO, 2025 (O)
    - AGU 106th Annual Fall Meeting, Washington, DC, 2024 (P)
- S.C. van den Heever, Z. Haddad, S. Tanelli, D. Posselt, K. Rasmussen, G. Stephens, Y. Kim, R. Auth, **J. Bukowski**, and Co-Authors: *Storm Chasing with the INCUS Mission.*
    - 51st Annual USNC-URSI National Radio Science Meeting, Boulder, CO, 2025 (I)
- Z. Xu, P. Kollias, A. Battaglia, B.P. Treserras, P.J. Marinescu, S.C. van den Heever, **J. Bukowski**, I. Singh and L.D. Grant: *Understanding Deep Convective Cores Observable from Space Combining Model Simulations.*
    - AGU 106th Annual Fall Meeting, Washington, DC, 2024 (P)
- P.J. Marinescu, S.C. van den Heever, L.D. Grant, **J. Bukowski**, and I. Singh: *How Much Convective Environment Subgrid Spatial Variability is Missing within Atmospheric Reanalysis Datasets?*
    - AGU 106th Annual Fall Meeting, Washington, DC, 2024 (P)
- I. Singh, G. Leung, P. Marinescu, **J. Bukowski**, L. Grant, R. Storer, S. Freeman, and S.C. van den Heever: *Analysis of the Vertical Momentum Budget of Tropical Convective Updrafts.*
    - AGU 106th Annual Fall Meeting, Washington, DC, 2024 (P)
- I. Singh, **J. Bukowski**, P. J. Marinescu, L. Grant, R. Storer, G. Leung, and Susan van den Heever: *High-resolution Numerical Simulations of Tropical Convection for the NASA INCUS Mission: Preliminary Analysis.*
    - WRF/MPAS User's Workshop, Boulder, CO, 2024 (O)

HIGHER AUTHOR PRESENTATIONS (CONTINUED; I = INVITED, O = ORAL, P = POSTER)

- B. Dolan, S.C. van den Heever, P. Kollias, P. Marinescu, D. Posselt, R. Chase, K. Rasmussen, R. Schulte, **J. Bukowski**, I. Singh, and L. Grant: *The NASA INCUS mission and observations of convective mass flux through reflectivity differencing.*
    - 12th European Conference on Radar in Meteorology and Hydrology (ERAD), Rome, Italy, 2024 (O)
- F. Scarsi, P.J. Marinescu, S.C van den Heever, I. Singh, **J. Bukowski**, and L.D. Grant*: A Neural Network based algorithm for Multiple Scattering Onset identification in the INCUS reflectivity profiles.*
    - European Space Agency ATMOS-2024, Bologna, Italy, 2024 (O)
- S.W. Freeman, C. Kwinta, R. Auth, S. Prasanth, **J. Bukowski**, R. Schulte, K. Rasmussen, and S.C. van den Heever: *Connecting Convection with its Environment Using Databases of Tracked Storms.*
    - NASA(AOS)-INCUS-GEWEX Convection Tracking Workshop, NYC, 2024 (O)
- S.C. van den Heever, S.W. Freeman, S. Prasanth, R. Auth, **J. Bukowski**, Z. Haddad, P.J. Marinescu, D.J. Posselt, K. Rasmussen, and I. Singh: *The Use of Cloud Object Tracking in the INCUS Mission.*
    - NASA(AOS)-INCUS-GEWEX Convection Tracking Workshop, NYC, 2024 (O)
- S.C van den Heever, R. Auth, **J. Bukowski**, and co-authors: *The NASA INCUS Mission: Enhancing our Understanding of Convective Storm Dynamic, Precipitation and Anvil Processes.*
    - International Conference on Clouds and Precipitation (ICCP), Jeju Island, South Korea, 2024 (O)
- P.J. Marinescu, S.C van den Heever, I. Singh, **J. Bukowski**, and L.D. Grant: *Cloud Processes Driving Updraft Variability on Different Timescales.*
    - International Conference on Clouds and Precipitation (ICCP), Jeju Island, South Korea, 2024 (O)
- G.R. Leung, J. Bukowski, L.D. Grant, P.J. Marinescu, I. Singh, and S.C. van den Heever: *Variability in Resolution Sensitivity of Updrafts and Surface Precipitation from Tropical Convection.*
    - International Conference on Clouds and Precipitation (ICCP), Jeju Island, South Korea, 2024 (O)
- S.C. van den Heever, Z. Haddad, **J. Bukowski**, and co-authors: *The NASA INCUS Mission – Understanding and Evaluating Tropical Storm Dynamics through Tropics-Wide Observations of Convective Mass Flux*.
    - AMS - 104th Annual Meeting, Baltimore, MD, 2024 (O)
- I. Singh, S.C. van den Heever, P.J. Marinescu, **J. Bukowski**, L.D. Grant, and G.R. Leung: *The Effective Environmental Width of Convective Updrafts in the Tropics.*
    - AMS - 104th Annual Meeting, Baltimore, MD, 2024 (P)
- Z. Haddad, S. Prasanth, van den Heever, S.C., S.W. Freeman, D.J. Posselt, G.R. Leung, **J. Bukowski**, S. Hristova-Veleva, and Co-Authors: *Deriving estimates of the storm-wide distribution of vertical air mass flux and wind speed w in convective storms from mm-wave radiometer observations and sporadic radar-derived estimates of w (as in the EarthCARE, AOS and INCUS missions).*
    - AGU 105th Annual Fall Meeting, San Francisco, CA, 2023 (O)
- S.C. van den Heever, Z. Haddad, S. Tanelli, K. Rasmussen, G. Stephens, D. Posselt, Y. Kim, S. Braun, **J. Bukowski**, and Co-Authors: *Understanding Tropical Storm Dynamics through the Lens of the NASA INCUS Mission.*
    - AGU 105th Annual Fall Meeting, San Francisco, CA, 2023 (O)

HIGHER AUTHOR PRESENTATIONS (CONTINUED; I = INVITED, O = ORAL, P = POSTER)

- S.C. van den Heever, and Co-Authors: MIT University Distinguished Professor - Houghton Lecture Series (I)
    - *Impacts of Aerosol-Radiation Interactions on Mesoscale Processes*
    - *Chasing Tropical Convective Storms with the NASA INCUS Mission*
    - *Dynamic and Microphysical Processes of Tropical Convection*
    - *Diving into Cold Pools*
    - *The Atmospheric Analysis Triumvirate: Using Theory, Observations and Models to Understand Convective Storms*
- S.C. van den Heever, Z. Haddad, S. Tanelli, K. Rasmussen, G. Stephens, D. Posselt, Y. Kim, S. Braun, **J. Bukowski**, and Co-Authors: *Studying Convective Storms and Extreme Weather with the NASA INCUS Mission.*
    - 5th RadMet.IT National Meeting of Radar Meteorology, Bologna, Italy, 2023 (I)
- S.C. van den Heever, Z. Haddad, S. Tanelli, K. Rasmussen, G. Stephens, D. Posselt, Y. Kim, S. Braun, **J. Bukowski**, and Co-Authors: *The INCUS Mission: Measuring Convective Mass Flux from Space.*
    - 14th International Precipitation Conference, Norman, OK, 2023 (I)
- S.C. van den Heever, Z. Haddad, S. Tanelli, K. Rasmussen, G. Stephens, D. Posselt, Y. Kim, S. Braun, **J. Bukowski**, and Co-Authors: *Tropical Convection through the Lens of the INCUS Mission.*
    - 40th AMS Conference on Radar Meteorology, Madison, WI, 2023 (I)
- B. Dolan, **J. Bukowski**, R. Chase, Z. Haddad, P. Kollias, P. Marinescu, D. Posselt, K.L. Rasmussen, R. Schulte, I. Singh, R. Storer, and S.C. van den Heever: *Quantitative Analysis of the dZ/dT Method using Ground Radar Observations.*
    - 40th AMS Conference on Radar Meteorology, Madison, WI, 2023 (O)
- L.D Grant, B. Kirsch, N.M. Falk, **J. Bukowski**, C.A. Neumaier, F. Ament, S.C. van den Heever, B.D. Ascher, J.A. Escobedo, S.W. Freeman, G.R. Leung, A.C. Mazurek, D.S. Veloso-Aguila, P.J. DeMott, S.M. Kreidenweis, R.J. Perkins, and E.A. Stone: *Variability Within and Among Midlatitude Cold Pools.*
    - AMS 20th Conference on Mesoscale Processes, Madison, WI, 2023 (O - Award)
- P.J. Marinescu, S.C. van den Heever, **J. Bukowski**, L.D. Grant, D.J. Posselt, and I. Singh: *The Covariability of Microphysical and Dynamical Processes Within Convective Updrafts in Different Convective Environments and Storm Types.*
    - AMS 20th Conference on Mesoscale Processes, Madison, WI, 2023 (O)
- Saleeby, S. M., S. C. van den Heever, and **J. Bukowski**: *Impact of Simulated Dust Lofting Methodologies on Sea Breezes along the Arabian Peninsula*.
    - AMS 98th Annual Conference, Austin, TX, 2018 (O – Presented by **J. Bukowski**)
- S. C. van den Heever, Z. Haddad, **J. Bukowski**, R. Chase, B. Dolan, S. Freeman, L. Grant, P. Kollias, G. Leung, J. Luo, P. Marinescu, M. Morris, D. Posselt, K. Rasmussen, P. Sai, R. Schulte, I. Singh, G. Stephens, R. Storer, O. Sy, H. Takahashi, S. Tanelli, and Z. Xu: *Enhancing our Understanding of Tropical Convective Processes through the INCUS Mission.*
    - AMS 20th Conference on Mesoscale Processes, Madison, WI, 2023 (O)
- Kirsch, B., L. D. Grant, N. M. Falk, C. A. Neumaier, **J. Bukowski**, F. Ament, and S. C. van den Heever: *Sub-Mesoscale Temperature Variability in Observed and Simulated Convective Cold Pools.*
    - EGU 2023 General Assembly, Vienna, Austria, 2023 (P)

HIGHER AUTHOR PRESENTATIONS (CONTINUED; I = INVITED, O = ORAL, P = POSTER)

- Marinescu, P. J., S. C. van den Heever, **J. Bukowski**, L. D. Grant, I. Singh, S. W. Freeman, G. Leung, and D. J. Posselt: *Overview of INCUS LES Simulations.*
    - Atmosphere Observing System (AOS) Model and DA Working Group, Virtual, 2023 (O)
- Done, J. M., M. Ge, E. Towler, D. Touma, D. L. Swain, **J. Bukowski,** and M. I. Brunner: *Exploring the Predictability of Connected Extremes.*
    - NCAR WRF/MPAS User's Workshop, Boulder, CO, 2023 (O)
    - NCAR MMM Happy Hour Seminar, Boulder, CO, 2023 (O)
    - AGU 104th Annual Fall Meeting, Chicago, IL, 2022 (P)
- Towler, E., J. M. Done, D. Touma, M. Ge, D. L. Swain, M. I. Brunner, and **J. Bukowski**: *Exploring the Predictability of Connected Extremes.*
    - World Climate Research Program - Workshop on Extremes in Climate Prediction Ensembles, Busan, Korea virtual, 2021 (P)
    - AGU 103rd Annual Fall Meeting, New Orleans, LA, 2021 (P)
- Grant, L. D., S. C. van den Heever, Z. S. Haddad, R. L. Storer, D. J. Posselt, **J. Bukowski**, O. O. Sy, and G. L. Stephens: *The Relationship between Vertical Velocity and Microphysical Process Rates in Deep Convection.*
    - AMS 100th Annual Conference, Boston, MA, 2020 (P)
- van den Heever, S. C., L. D. Grant, Z. S. Haddad, R. L. Storer, D. J. Posselt, **J. Bukowski**, O. O. Sy, and G. L. Stephens: *A Linear Relationship Between Microphysical Process Rates and Vertical Motion in Convective Storm Systems.*
    - AGU 101st Annual Fall Meeting, San Francisco, CA, 2019 (I)
- van den Heever, S. C., **J. Bukowski**, L. Grant, S. R. Herbener, S. Kawecki, P. J. Marinescu, J. M. Park, and S. M. Saleeby: *The Impact of Radiation Absorbing Aerosols on the Intensity and Organization of Several Mesoscale Regimes.*
    - AMS 98th Annual Conference, Austin, TX, 2018 (I)
- Freeman, S. W., **J. Bukowski**, L. D. Grant, P. J. Marinescu, S. M. Hitchcock, J. M. Park, and S. C. van den Heever: *Use of sUAS in Sampling Cold Pools: Instrumentation Calibration/Validation and First Results.*
    - AGU 100th Annual Fall Meeting, Washington, D.C., 2018 (P)
- Saleeby, S. M., **J. Bukowski**, S. C. van den Heever, A. L. Walker, J. E. Solbrig, and S. D. Miller: *Influence of dust source databases on the simulated radiation budget and sea breezes along the Arabian Peninsula.*
    - AGU 100th Annual Fall Meeting, Washington, D.C., 2018 (P)
- Posselt, D. J., J. S. Reid, **J. Bukowski**, R. L. Storer, and F. He: *Aerosol–Convection Covariability: Results from Field Campaigns and Model Ensembles.*
    - AMS 98th Annual Conference, Austin, TX, 2018 (O)
- Grant, L. D., S. C. van den Heever, P. J. Marinescu, S. W. Freeman, **J. Bukowski**, and P. C. Kennedy: *Spatial and Temporal Variability in Midlatitude Cold Pools from C3LOUD-Ex Observations.*
    - AMS 98th Annual Conference, Austin, TX, 2018 (O)
- Freeman, S. W., **J. Bukowski**, S. M. Hitchcock, L. D. Grant, P. J. Marinescu, and S. C. van den Heever*: A Novel Use of Multirotor sUAS to Sample Severe Convective Storms during the C3LOUD-Ex Field Campaign.*
    - AMS 98th Annual Conference, Austin, TX, 2018 (O)
    - Action for Climate Empowerment (ACE) Science Working Group, Silver Spring, MD, 2018 (O)

HIGHER AUTHOR PRESENTATIONS (CONTINUED; I = INVITED, O = ORAL, P = POSTER)

- Kreidenweis, S. M., Q. Bian, L. Grasso, X. Xu, **J. Bukowski**, S. C. van den Heever, J. E. Solbrig, and S. Miller: *Disappearing Dust Plumes: Exploring the Roles of Water Vapor and Dust Properties in Detection from Satellite Observations.*
    - AMS 98th Annual Conference, Austin, TX, 2018 (O)
- Posselt, D. J., J. Mace, Z. Xu, R. Storer, **J. Bukowski**: *Measurements and processes: what do we need to observe, and how accurately do we need to measure it? (It's an OSSE, Jim, but not as we know it...).*
    - Action for Climate Empowerment (ACE) Science Working Group, Silver Spring, MD, 2018 (O)
- Solbrig, J. E., S. D. Miller, S. C. van den Heever, S. M. Kreidenweis, M. M. Oo, M. Zupanski, J. Zhang, J. Wang, R. Holz, S. C. Albers, L. D. Grasso, A. Kliewer, **J. Bukowski**, J. Park, S. M. Saleeby, and T.-C. Wu: *Advancing Littoral Zone Aerosol Prediction via Holistic Studies in Regime-Dependent Flows: August 3-9, 2016 Middle East Dust Event.*
    - AGU 99th Annual Fall Meeting, New Orleans, LA, 2017 (O)
- Posselt, D. J., and **J. Bukowski**: *Sensitivity of Mesoscale Convective Cloud Systems to Changes in Microphysics and the Environment.*
    - AMS 32nd Conference on Hurricanes and Tropical Meteorology, San Juan, Puerto Rico, 2016 (O)
-

JOURNAL REVIEWER SERVICE

JGR-Atmospheres, ACP, JAS, QJRMS, GMD, Atmospheric Pollution Research, Geosciences, Nature Communications Earth & Environment

PROFESSIONAL SOCIETIES

American Meteorological Society (AMS)
American Geophysical Union (AGU)
American Association for Aerosol Research (AAAR) – CSU Local Chapter
Earth Science Women's Network (ESWN)
500 Women Scientists

OTHER SCIENTIFIC WORK EXPERIENCE

University of Michigan Herbarium
Plant Imaging Technician and Data Specialist (2015-2016)
-Imaged and cataloged lichen and bryophyte specimens and geolocated collection sites for the museum's collection.
-Digitalized records to track migration of plants due to climate change.

United Vaccines
Laboratory Technician – Tissue Culture & Virus Group (2013-2014)
-Lead technician of primary cell line creation, propagation, and viral infections.
-Designed and performed experiments to improve the effectiveness of techniques and authored new procedures.