Kathrin Alber

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EDUCATION

2019— **University at Albany, SUNY, Albany, NY, USA**
Ph.D. Student, Department of Atmospheric and Environmental Science (DAES)
Advisor: Dr. Liming Zhou

2017-2018 **George Mason University, Fairfax, VA, USA**
M.S. Thesis, Atmospheric, Oceanic & Earth Sciences Department (AOES)
Advisor: Dr. Kathy Pegion

2019 **University of Basel, Switzerland**
M.S. in Geoscience, Department of Atmospheric Sciences
Advisor: Dr. Eberhard Parlow

2016 **University of Basel, Switzerland**
B.S. in Geoscience, Department of Atmospheric Sciences
Advisor: Dr. Eberhard Parlow

RESEARCH EXPERIENCE

2019— **Graduate Research Assistant**
DAES, University at Albany
Research on the climate variability over the Congo rainforest includes analyzing thunderstorm activity and trends, investigating changes in the timing and intensity of the diurnal cycle of convection, and assessing the effects of the drying trend and different modes of variability on the diurnal cycles of convection, using the WRF model, reanalysis and satellite data

2017-2018 **Research Investigator**
AOES, George Mason University
Research on the predictability of the North Atlantic Oscillation using CCSM4 and GEFS model data

PUBLICATIONS

Peer-reviewed:

Alber, K., Raghavendra, A., Zhou, L. et al., 2021. Analyzing intensifying thunderstorms over the Congo Basin using the Gálvez-Davison index from 1983–2018. Clim. Dyn. 56, 949–967 (2021). https://doi.org/10.1007/s00382-020-05513-x

Alber, K., Zhou, L., and Raghavendra, A., 2021. A shift in the diurnal timing and intensity of deep convection over the Congo Basin during the past 40 years. Atmos. Res. 264, 0169-8095. https://doi.org/10.1016/j.atmosres.2021.105869

CONFERENCE PRESENTATIONS

2023 **Alber, K.,** Zhou, L., Roundy, P., and Solimine, S., 2023. Influence of the Madden-Julian Oscillation on the diurnal cycles of convection and precipitation over the Congo Basin. *103rd American Meteorological Association (AMS) Annual Meeting, Denver, CO.* **(Oral)**

2022 **Alber, K.,** Zhou, L., Roundy, P., and Solimine, S., 2023. Influence of the Madden-Julian Oscillation on the diurnal cycles of convection and precipitation over the Congo Basin. *Graduate Climate Conference, Pack Forest, WA.* **(Poster)**

2022 **Alber, K.,** Zhou, L., and Raghavendra, A., 2021. A shift in the diurnal timing and intensity of deep convection over the Congo Basin during the past 40 years. *102nd American Meteorological Association (AMS) Annual Meeting, virtual.* **(Oral)**

2021 **Alber, K.,** Raghavendra, A., Zhou, L. et al., 2021. Analyzing intensifying thunderstorms over the Congo Basin using the Gálvez-Davison index from 1983–2018. *101st American Meteorological Association (AMS) Annual Meeting, virtual.* **(Oral)**

INTERNSHIPS

2018-2019 **Meteotest, Bern, Switzerland**
Internship weather forecasting. Responsibilities included issuing daily weather forecasts for newspapers, TV channels, and websites as well as preforming multiple live weather radio interviews every day and providing personalized weather information over the phone. I also taught weather, climate and natural disaster lessons for elementary school classes.

2015-2016 **MeteoNews, Zürich, Switzerland**
Internship weather forecasting. Responsibilities included analyzing weather patterns using different models and issuing daily written weather forecasts for newspapers, TV channels, and websites

WORKSHOPS AND SUMMER SCHOOLS

2022 NCAR Trustworthy Artificial Intelligence for Environmental Science (TAI4ES):
Weeklong summer school on developing trustworthy AI for the earth and environmental sciences

TECHNICAL SKILLS

Programming:	MATLAB, Python, GrADS, Linux shell scripting
Datasets:	ERA-Interim, ERA5, GridSat-B1, MODIS, MERRA-2, NOAA CPC, TRMM, IMERG, GLEAM, CMORPH
Models:	Weather Research and Forecasting Model (WRF), MIT single-column model
Version control:	Git, Github

SERVICE AND OUTREACH

SERVICE TO THE PROFESSION

2021— **Journal Reviewer:** Journal of Climate, Journal of Applied Meteorology and Climatology, Atmospheric Research, Climate Dynamics

2022 **Session Co-Chair:** AMS 102nd annual meeting, Session 8A African Climate Variability and Change

SERVICE TO THE UNIVERSITY AT ALBANY

2020-2021 **Organizer:** Department of Atmospheric and Environmental Science Climate group weekly meetings

HONORS AND AWARDS

2017 Master's Thesis, Zeno Karl Schindler Foundation

2017 Master's Thesis, Karitative Stiftung Dr. Gerber-ten Bosch

PROFESSIONAL AFFILIATIONS

2022— Canadian Avalanche Association

2022— American Avalanche Association (Affiliate Member)

2020— American Meteorological Association

LANGUAGES

German (Native), English (Fluent), Spanish (Proficient), French (Conversational), Norwegian (Basic)

AVALANCHE AND SEARCH AND RESCUE CERTIFICATIONS

2023 American Avalanche Institute (AAI): Professional Level 1 Avalanche Course (Pro 1)

2022 National Ski Patrol: Outdoor Emergency Care Course (OEC)

2022 Wilderness First Responder (WFR)

2022 Department of Environmental Conservation (DEC): Basic Wildland Search Skills

2022 American Institute for Avalanche Research & Education (AIARE): Avalanche Rescue Course

2021 American Institute for Avalanche Research & Education (AIARE): Recreational Level 1 Course

2022 Mountain Rescue Association: Situational awareness in search and rescue; Risks in mountain rescue operations; Psychological first aid; General backcountry safety

SKIING AND CLIMBING VOLUNTEER WORK

2022— Thunderbolt Volunteer Ski Patrol

2022— Adirondack Mountain Rescue: Technical rescue committee member and active field member

2020— Thacher Climbing Coalition: Board member and membership chair

2014-2019 Swiss Alpine Club: Climbing and mountaineering instructor for children and young adults