Kathrin Alber

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EDUCATION

University at Albany, SUNY, Albany, NY, USA **09/2019-present**
Ph.D. Student, Department of Atmospheric and Environmental Science (DAES)
Advisor: Dr. Liming Zhou

George Mason University, Fairfax, VA, USA **08/2017-08/2018**
M.S. Thesis, Atmospheric, Oceanic & Earth Sciences Department (AOES)
Advisor: Dr. Kathy Pegion

University of Basel, Switzerland **01/2016-01/2019**
M.S. in Geoscience, Department of Atmospheric Sciences
Advisor: Dr. Eberhard Parlow

University of Basel, Switzerland **08/2012-01/2016**
B.S. in Geoscience, Department of Atmospheric Sciences
Advisor: Dr. Eberhard Parlow

RESEARCH EXPERIENCE

Graduate Research Assistant **09/2019-present**
DAES, University at Albany
- Analyzing thunderstorm activity and trends over the Congo rainforest
- Investigating changes in the timing and intensity of the diurnal cycle of convection over the Congo rainforest
- Assessing the effects of drying trend and different modes of variability on the diurnal cycle of convection over the Congo rainforest
- Passed Ph.D. qualification exam (Dec 2020) and Ph.D. prospectus (Nov 2021)

Research Investigator **08/2017-08/2018**
AOES, George Mason University
- Analyzed the predictability of the North Atlantic Oscillation

Research Investigator **08/2015-09/2015**
Gobabeb Research and Training Centre, Namibia
- Quantified fog distribution in the Namib desert

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

103rd AMS Annual Meeting, Denver, CO **01/2023**
Influence of the Madden-Julian Oscillation on the diurnal cycles of deep convection and precipitation over the Congo Basin **(Oral)**

Graduate Climate Conference, Pack Forest, WA **10/2022**
Influence of the Madden-Julian Oscillation on the diurnal cycles of deep convection and precipitation over the Congo Basin **(Poster)**

102nd AMS Annual Meeting **01/2022**
A shift in the diurnal timing and intensity of deep convection over the Congo Basin during the past 40 years. **(Oral)**

101st AMS Annual Meeting **01/2021**
Analyzing intensifying thunderstorms over the Congo Basin using the Gálvez-Davison index from 1983–2018. **(Oral)**

HONORS AND AWARDS

Master's Thesis, Zeno Karl Schindler Foundation **2017**
Master's Thesis, Karitative Stiftung Dr. Gerber-ten Bosch **2017**

INTERNSHIPS

Meteotest, Bern, Switzerland **08/2018-02/2019**
Internship weather forecasting
- Analyzed weather patterns using different models
- Issued daily written weather forecasts for newspapers, TV channels, and websites
- Performed multiple live weather radio interviews every day
- Provided personalized weather information on the phone for individual people, helicopter operations, and mountaineers
- Taught weather, climate, and natural disaster classes for elementary school classes
- Prepared weather reports for insurance companies

MeteoNews, Zürich, Switzerland **10/2015-03/2016**
Internship weather forecasting
- Analyzed weather patterns using different models
- Issued daily written weather forecasts for newspapers, TV channels, and websites

WORKSHOPS AND SUMMER SCHOOLS

NCAR Trustworthy Artificial Intelligence for Environmental Science (TAI4ES) **06/2022**
- 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)
Version control:	Git, Github
Platforms:	Mac, Windows, Linux

SERVICE AND OUTREACH

PROFESSIONAL

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

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

UNIVERSITY AT ALBANY

Organizer: DAES Climate group weekly meetings **2020-2021**

UNIVERSITY OF BASEL

Mentor: Open lecture auditorium for refugees and asylum seekers **2017**

VOLUNTEER EXPERIENCE

Thunderbolt Volunteer Ski Patrol **2022-present**

Adirondack Mountain Rescue

- Technical rescue committee member **2022-present**
- Active field member **2022-present**

Thacher Climbing Coalition

- Board member **2021-present**
- Membership chair **2020-present**

Swiss Alpine Club **2014-2019**

- Climbing and mountaineering instructor for children and young adults

LANGUAGES

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

PROFESSIONAL AFFILIATIONS

Canadian Avalanche Association	**2022-present**
American Avalanche Association (Affiliate Member)	**2022-present**
American Meteorological Association	**2020-present**

OTHER CERTIFICATIONS

Outdoor Emergency Care Course (OEC) **2022**
Wilderness First Responder (WFR) **2022**
DEC Basic Wildland Search Skills **2022**
The American Institute for Avalanche Research and Education (AIARE)
- AIARE Avalanche Rescue **2022**
- AIARE 1 **2021**

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