# 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

### 102nd AMS Annual Meeting **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 **2021**
Analyzing intensifying thunderstorms over the Congo Basin using the Gálvez-Davison index from 1983–2018. **(Oral)**

## HONORS AND AWARDS

Master Thesis, Zeno Karl Schindler Foundation **2017**
Master 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

## TECHNICAL SKILLS

**Programming:** MATLAB, Python, GrADS, Linux shell scripting
**Datasets:** ERA-Interim, ERA5, GridSat-B1, MODIS, MERRA-2, NOAA CPC, TRMM, IMERG, GLEAM, CMORPH
**Version control:** Git, Github
**Platforms:** Mac, Windows, Linux

## SERVICE AND OUTREACH

## PROFESSIONAL

**Journal Reviewer:** Journal of Climate

**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

**Adirondack Mountain Rescue** **2022-present**

- Active field member

**Thacher Climbing Coalition**

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

**Swiss Alpine Club** **2014-2019**

- Climbing and mountaineering guide for children and young adults

## LANGUAGES

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

## PROFESSIONAL AFFILIATIONS

American Avalanche Association **2022-present**
American Meteorological Association **2020-present**

## OTHER CERTIFICATIONS

**The American Institute for Avalanche Research and Education (AIARE)**

- AIARE Avalanche Rescue **2022**
- AIARE 1 **2021**