Lucas J. Sterzinger

Curriculum Vitae

Address and Phone Censored for GitHub
https://github.com/lsterzinger

EDUCATION

PhD, Atmospheric Science — 2017 - Present
University of California, Davis, Davis, CA
Anticipated: Fall 2022

Bachelor of Science, Atmospheric Sciences — 2012 - 2017
University of North Dakota, Grand Forks, ND
Minor: Mathematics

Bachelor of Science, Aeronautics — 2012 - 2017
University of North Dakota, Grand Forks, ND

WORK EXPERIENCE

Graduate Student Researcher — 2017 - Present
Atmospheric Science Graduate Group, UC Davis
Dr. Adele Igel, Faculty Advisor

- Works on various research related to cloud and precipitation physics. Projects include:
  - Effect of ice crystal habit (shape) on orographic snowfall in the Sierra Nevada Mountains. (Funding: Internal)
  - Examining the relationship between mixed-phase Arctic cloud dissipation and aerosol properties. (Funding: DOE ASR)

Intern — Summer 2021
Summer Internship in Parallel Computational Science (SIParCS)
National Center for Atmospheric Research (NCAR), Boulder, CO

- Worked on development of tools to access cloud-hosted netCDF4 data

Undergraduate Research Assistant — 2016 - 2017
Dept. of Atmospheric Sciences, University of N. Dakota
Dr. Gretchen Mullendore, Faculty Advisor

- Worked on the "Big Weather Web" project examining potential uses for cloud infrastructure for numerical weather prediction.

Undergraduate Teaching Assistant — 2015 - 2017
Dept. of Atmospheric Sciences, University of N. Dakota

- Independently taught Introduction to Meteorology lab, complete with weekly lectures and laboratory experiments.

Technical Support Specialist — 2012 - 2017
Univ. of N. Dakota School of Medicine and Health Sciences

- Responsible for direct technology support to faculty, staff, and students. Also worked on managing video conference sytems, networks, and servers.

SERVICE

UC Davis Graduate Student Association

- General Assembly Representative — 2019-Present
- Elections Committee — 2019-2020

UC Davis Academic Senate
Committee on Information Technology
Graduate Student Representative — 2020-2021

PUBLICATIONS

Modeling Tenuous Arctic Mixed-Phase Clouds:
Extreme Aerosol Forcing Simulations — (In Prep)
Sterzinger, L. J., Sedlar, J., Guy, H., Neely III, R., & Igel, A. L.

The Effects of Ice Habit on Simulated Orographic Snowfall — 2021
Sterzinger, L. J., & Igel, A. L. - *Journal of Hydrometeorology*
https://doi.org/10.1175/JHM-D-20-0253.1

Models in the Cloud: A Cost Exploration
of Cloud Computing for the Atmospheric Sciences — Nov. 2017
News@Unidata Blog
https://www.unidata.ucar.edu/blogs/news/entry/models-in-the-cloud-a

CONFERENCES

Arctic Mixed-Phase Cloud Dissipation and Its
Relationship to Low CCN Concentrations [Poster] — Jan. 2021
American Meteorology Annual Meeting 2021

Effects of Aerosol Concentration on the Dissipation
of Arctic Mixed-Phase Clouds [eLightning] — Dec. 2020
American Geophysics Union Fall Meeting 2020

Effect of Ice Habit on Modeled
Predictions of Orographic Precipitation [Poster] — Dec. 2019
American Geophysics Union Fall Meeting 2019

Effects of Ice Habit on Sierra Nevada Snowfall
and Implications for Climate Change [Poster] — Dec. 2018
American Geophysics Union Fall Meeting 2018

COMPUTER SKILLS

Languages & Software: Python, Julia, MATLAB, Fortran, C
Operating Systems: Unix/Linux, MacOS, Windows

MEMBERSHIPS

American Meteorological Society
American Geophysics Unions

LANGUAGES

English
French (Bilingual Fluency)
German (2 years of courses)