

Aaron J. Piña, Ph.D.

(361)484-2652
Pina.Aaron@gmail.com

SKILLS

Atmospheric modeling, weather and climate, biogeochemistry, social-ecological dynamics, inter-/trans-disciplinary research, geoscience data integration and analysis, science policy, teaching, and communication

PROFESSIONAL EXPERIENCE

Aeris, LLC

Louisville, CO

Scientist II

Jan 2017-present

- Applied atmospheric transport and dispersion modeling techniques to chemical, biological, radiological, and nuclear source estimation, transport/dispersion, and deposition
- Worked with atmospheric transport and dispersion models such as the Weather Research and Forecasting (WRF) model, the Quick Urban & Industrial Complex (QUIC) Dispersion Modeling System, and GPU-based atmospheric models.

EDUCATION

Colorado State University

Fort Collins, CO

Doctor of Philosophy in Ecology

Oct 2016

Department of Atmospheric Science

Master of Science in Atmospheric Science

Dec 2013

Department of Atmospheric Science

Texas A&M University

College Station, TX

Bachelor of Science in Meteorology

May 2011

Department of Atmospheric Sciences

RESEARCH EXPERIENCE

Colorado State University

Ph.D. in Ecology, *NSF IGERT Fellowship Grant Traineeship* 2013-present

- Developed an early warning system for ranchers in eastern Colorado using the WRF model to reduce ammonia emissions. The early warning system was used to study human-environment interactions.
- Worked as climate scientist on a stakeholder-driven watershed management project with CSU Department of Civil Engineering;

Experience with hydrology, climate data (e.g. PRISM, TopoWx, etc.) and statistical/dynamic downscaling methods

M.S. Atmospheric Science 2011-2013

- Experience with the WRF Model; Used air pollution instruments, including the Aerodynamic Particle Sizer (APS), the Scanning Mobility Particle Sizer (SMPS), diffusion denuders, ion chromatograph, and the Aerosol Mass Spectrometer (AMS)

National Center for Atmospheric Research **Boulder, CO**

SOARS intern 2010-2011

- Year 1: *Estimating stratocumulus-topped marine boundary layer's height using wind profilers*
- Year 2: Participated in the Colorado Airborne Multi-phase Study (CAMPS); *Comparison of microphysical cloud properties from the Forward Scattering Spectrometer Probe and the Cloud Droplet Probe during CAMPS field campaign*

Field Campaigns

- *Colorado Airborne Multi-Phase cloud Study (CAMPS)* 2011
Flight forecaster; compared two in-situ instruments aboard the research flight for research
- *Front Range Air Pollution and Photochemistry Experiment (FRAPPÉ)* 2014
Nowcaster for NCAR and NASA research flights

RESEARCH PRODUCTS

- Wee, Brian; Jones, Katie; Kuslikis, Al; Rosemartin, Alyssa; Hardison, Preston; Piña, Aaron, 2016: *Esri-NEON Tribal Lands Collaboratory: An ODE to Phenology*. figshare.
<https://dx.doi.org/10.6084/m9.figshare.2060325.v2>
- Piña, A.J., 2013: Transport of pollutants from eastern Colorado into the Rocky Mountains via upslope winds. M.S. thesis, Dept. of Atmospheric Science, Colorado State University, 37 pp.
- Piña, A., A. G. Hallar, V. Salazar, and G. Chirokova, 2011: Comparison of microphysical cloud properties from the FSSP and CDP during the CAMPS field campaign. UCAR SOARS Protégé Research Paper.
- Piña, A., L.M. Hartten, and L. Bianco, 2010: Estimating the height of the stratocumulus-topped marine boundary layer using wind profilers. UCAR SOARS Protégé Research Paper

PRESENTATIONS

- Northeast Livestock Symposium, Sterling, CO, *invited* Nov. 2016
- Arkansas Valley Livestock Symposium, La Junta, CO, *invited* Oct. 2016
- Ph.D. Defense, Colorado State University Oct. 2016
- Department of Atmospheric Sciences, Texas A&M University, Sep. 2016

- invited*
- Southern Louisiana Wetlands Discovery Center Youth Wetlands Summit, Thibodaux, LA, *invited* Mar. 2016
 - Hydrology Days, Colorado State University 2013-2016
 - Natural Resources Ecology Lab, Colorado State University, *invited* Feb. 2016
 - American Meteorological Society Annual Meeting, talk 2012, 2014-16
 - American Geophysical Union Annual Meeting, poster 2010-15
 - Environmental Protection Agency, Clean Air Markets Division, Washington, DC Jun. 2015
 - China Agricultural University, Beijing, China May 2015
 - Center for Multiscale Modeling of Atmospheric Processes Team Meeting, Fort Collins, CO, *invited* Aug. 2014
 - American Geophysical Union Annual Meeting, talk 2014
 - Colorado College Environmental Science Seminar, Colorado Springs, CO, *invited* 2013
 - American Meteorological Society Community Meeting, Boulder, CO, *invited* 2013

WORKSHOPS

- Employing Model-Based Reasoning in Socio-Environmental Synthesis 2-week workshop, NSF-funded workshop for PhDs Jul. 2016
- High-Resolution Climate Modeling workshop, Boulder, CO, *participant* Aug. 2015
- North Central Climate Science Center early career scientist training, *participant* May 2015
- American Meteorological Society Summer Policy Colloquium, Washington, D.C., *participant* Jun. 2014
- National Science Foundation Earthcube end-user workshop, Washington, D.C., *participant* Mar. 2014

AWARDS

- School of Global and Environmental Sustainability Fellowship, Colorado State University 2015-16
- 2nd place oral presentation, American Meteorological Society Jan. 2015
- Colorado Environmental Leadership Program Bronze Award as part of a multidisciplinary team that developed an "early warning system" to reduce nitrogen deposition in Rocky Mountain National Park Oct 2014
- National Science Foundation Integrative Graduate Education and Research Training (IGERT) Fellowship 2011-present

COMPUTING SKILLS

Experience with Windows, UNIX/Linux, and Mac OS X operating systems

Proficient with the following computer programming languages:
Python (primary), NCAR Command Line (NCL), Interactive Data Language (IDL), Fortran,
ArcGIS/QGIS, Matlab, R, and bash-shell scripting

Experience using the following data formats:
GRIB, NetCDF, and HDF

PROFESSIONAL DEVELOPMENT

- Co-authored a blog post for Union of Concerned Scientists *Oct. 2016*
- Graduate student advisor for CSU oSTEM, a professional group for LGBTQ students in STEM fields *2014-present*
- Member, American Meteorological Society *2010-present*
- Member, American Geophysical Union *2010-present*
- Ph.D. Graduate Student Representative, CSU *2013-2015*
- Science columnist for Port Lavaca Wave (Port Lavaca, TX) *2014*
- President, FORT Collins Atmospheric Scientists (Local chapter of the American Meteorological Society) *2013-2014*
- Awardee, Climate Science Day on Capitol Hill: provided Members of Congress information on climate science *2012-2014*
- Assessment of reasoning about developmental pedagogy *2013*
- Student Senator, Texas A&M University *2010-2011*
- National Weather Service, Upper-Air Certification *2008-2010*

TEACHING

Private tutor: RamTutor Network **Fort Collins, CO**
Tutored college math, physics, and chemistry *Aug 2015-May 2016*

Center for Multiscale and Modeling of Atmospheric Processes Summer Teacher's Course **Fort Collins, CO**
Graduate Student Aide: helped provide K-12 teachers with college-level weather and climate content *2012, 2014, 2015*

Community College of Denver **Denver, CO**
Guest lecturer for ENV 101, Environmental Science
"Environmental Science in Colorado" *Mar. 2014*

Colorado College **Colorado Springs, CO**
Visiting Instructor
EV 211 Human Impacts on Biogeochemical Cycles *Fall 2013*

Colorado State University **Fort Collins, CO**
Guest lecturer for LIFE 320, Ecology
"Biogeochemical Cycles" *Mar. 2014*

Graduate Teaching Assistant/Lab Instructor *Fall 2012*
ATS 350/351, Introduction to Weather and Climate

PERSONAL

Mentor for K-12 special-needs student interested in meteorology

2013-present