Katherine (Katie) Dagon, Ph.D.

ASP Postdoctoral Fellow, National Center for Atmospheric Research
P.O. Box 3000, Boulder, CO 80307
kdagon@ucar.edu ◆ https://katiedagon.github.io

RESEARCH APPOINTMENTS

National Center for Atmospheric Research — Boulder, CO
ASP Postdoctoral Fellow, Climate and Global Dynamics — 2017 -

EDUCATION

Harvard University — Cambridge, MA
Ph.D., Earth and Planetary Sciences — 2017
A.M., Earth and Planetary Sciences — 2015
Harvard Graduate Consortium on Energy and Environment — 2012-2015

- Completed coursework in climate science, energy technology and energy policy.

Brown University — Providence, RI
B.S., Mathematics-Physics, graduation with Honors — 2010

RESEARCH EXPERIENCE

Harvard University — Cambridge, MA
Ph.D. Researcher, Department of Earth and Planetary Sciences — 2011-2017

- Ph.D. Thesis: Exploring the Climate Impacts of Solar Geoengineering on Land-Atmosphere Interactions
- *Advisor: Daniel Schrag, Department of Earth and Planetary Sciences*

Brown University — Providence, RI
Undergraduate Researcher, Department of Physics — 2009-2010

- Undergraduate Thesis: Statistics of a Solar Tachocline Model with Stochastic Forcing
- *Advisor: Brad Marston, Department of Physics*

TEACHING EXPERIENCE

Harvard University — Cambridge, MA
Teaching Fellow, Department of Earth and Planetary Sciences — 2013-2016

- Taught and facilitated discussion sections and labs in climate science and energy at both the undergraduate and graduate student level.
  The Consequences of Energy Systems (graduate level, Fall 2015 and Fall 2016)
  The Climate-Energy Challenge (undergraduate level, Fall 2014, Fall 2015 and Fall 2016)
  The Fluid Earth (undergraduate level, Spring 2013)

Active Learning in the Sciences, Bok Center Teaching Seminar — 2015

Brown University — Providence, RI
Teaching Assistant, Department of Mathematics — 2009

- Graded problem sets and exams for Introductory Calculus.
- Helped implement online grade sharing system for multiple course sections.

Math Peer Tutor, Brown University Tutoring Program — 2008

- Tutored undergraduate students in Math and Applied Math courses.

PROFESSIONAL EMPLOYMENT

State of Connecticut Department of Energy and Environmental Protection Hartford, CT
Seasonal Resource Assistant, Recycling and Source Reduction 2007, 2008, & 2010-2011

UTC Power South Windsor, CT
Intern, NASA-UTC Internship Program 2010

PEER-REVIEWED PUBLICATIONS

Dagon, K., and D. P. Schrag (2017), Regional Climate Variability under Model Simulations of Solar Geoengineering. *Journal of Geophysical Research: Atmospheres*, 122, 12106-12121, http://dx.doi.org/10.1002/2017JD027110.

Dagon, K., and D. P. Schrag (2016), Exploring the Effects of Solar Radiation Management on Water Cycling in a Coupled Land-Atmosphere Model. *Journal of Climate*, 29, 2635-2650, http://dx.doi.org/10.1175/JCLI-D-15-0472.1.

Tobias, S. M., **K. Dagon**, and J. B. Marston (2011), Astrophysical Fluid Dynamics via Direct Statistical Simulation. *The Astrophysical Journal*, 727, 127, http://dx.doi.org/10.1088/0004-637X/727/2/127.

SELECTED CONFERENCE PRESENTATIONS

Dagon, K., R. Fisher, D. M. Lawrence, and B. M. Sanderson, Reducing Uncertainty in Land Surface Models. *American Geophysical Union Fall Meeting*, Washington, DC, oral presentation, 2018.

Dagon, K., R. Fisher, D. M. Lawrence, and B. M. Sanderson, Moving towards a global biogeophysical parameter optimization for CLM5. *23rd Annual CESM Workshop*, Boulder, CO, oral presentation, 2018.

Dagon, K., and D. P. Schrag, Effects of Solar Geoengineering on Vegetation: Implications for Biodiversity and Conservation. *American Geophysical Union Fall Meeting*, New Orleans, LA, oral presentation, 2017.

Dagon, K., and D. P. Schrag, Regional Climate Variability under Model Simulations of Solar Geoengineering. *Gordon Research Conference: Climate Engineering*, Newry, ME, poster presentation, 2017.

Dagon, K., Soil Moisture-Climate Coupling under Model Simulations of Solar Geoengineering. *21st Annual CESM Workshop,* Breckenridge, CO, oral presentation, 2016.

Dagon, K., Exploring the Effects of Solar Radiation Management on Water Cycling in a Coupled Land-Atmosphere Model. *Graduate Climate Conference*, Woods Hole, MA, oral presentation, 2015.

SCIENCE WRITING

Dagon, K., "Engineering the Earth to Fight Climate Change," *Science in the News Blog*, 25 October 2016, http://sitn.hms.harvard.edu/flash/2016/engineering-earth-fight-climate-change.

Dagon, K., "Climate Change 2016: Make America Hot Again," *Science in the News Blog*, 9 August 2016, http://sitn.hms.harvard.edu/flash/2016/climate-change-2016-make-america-hot.

Dagon, K., "Science by the Pint," *The Plainspoken Scientist*, Student Blog Series, 18 July 2016, http://blogs.agu.org/sciencecommunication/2016/07/18/science-by-the-pint.

Dagon, K., "Pausing to Talk About Climate Change," *Science in the News Blog*, Special Edition on Climate Change, 30 June 2014, http://sitn.hms.harvard.edu/flash/2014/pausing-to-talk-about-climate-change.

AWARDS AND FELLOWSHIPS

Earth Educators' Rendezvous Travel Grant	2018
NCAR Advanced Study Program Postdoctoral Fellowship	2017
Presidential Management Fellowship Finalist	2017
NCAR CESM Workshop Travel Grant	2016
Certificate of Teaching Excellence, Bok Center for Teaching & Learning	2014, 2016
Duff Family Endowed Graduate Support Fund	2013-2014
Graduate Consortium Fellowship, Harvard University Center for the Environment	2012-2013
Joseph J. Loferski Award, Brown University Engineering	2010
Brown University Undergraduate Research and Teaching Award	2009

INVITED SEMINARS

University of Washington Department of Atmospheric Sciences	Seattle, WA
Reducing Uncertainty in Land Surface Models	2018

ACADEMIC SERVICE AND LEADERSHIP

Physics of Climate Executive Committee, American Physical Society	2019 -
Postdoctoral Fellows Networking Committee, National Center for Atmospheric Research	2017 -
Physics of Climate Program Committee, American Physical Society	2017-2018
Plants and Climate Seminar Series Organizer, Harvard University	2015-2016
Graduate Student Field Trip Organizer, Harvard University	2014
Agassiz Visiting Lecturer Committee, Harvard University	2013-2014
Summer School on Geoengineering Organizing Committee, Harvard University	2013
ClimaTea Journal Club Organizer, Harvard University	2012

Journal Reviewer: Geoscientific Model Development, Atmospheric Chemistry and Physics, Journal of Hydrometeorology

PUBLIC ENGAGEMENT

NCAR CESM Tutorial Volunteer, Boulder, CO	2018
USA Science and Engineering Festival Volunteer, Washington, DC	2018
PBS Digital Studios Scientific Consultant	2018
Project Bridge Colorado Science Day at the State Capitol, Denver, CO	2018
Twin Peaks Charter Academy Guest Scientist, Longmont, CO	2017
NCAR Super Science Saturday Volunteer, Boulder, CO	2017, 2018
Building a Greener Idaho Radio Show Guest	2017
Harvard GSAS Science Policy Group Trip, Washington, DC	2016
There's a Scientist in My Classroom! Guest Lecturer, Danvers, MA	2014
Cambridge 8th Grade Science and Engineering Showcase Volunteer, Cambridge, MA	2014
Science in the News Event Organizer and Lecturer, Boston, MA	2013-2016

MENTORING ACTIVITIES

NCAR SOARS Internship Program Community Mentor	2018
Harvard College Women's Center WISTEM Mentor	2016-2017
Intel Science Research Program High School Student Mentor	2014-2015
EPS Graduate Student Mentee (G1) and Mentor (G3, G4)	2011-2015
Harvard Graduate Women in Science and Engineering Mentoring Program	2011-2013
Brown University Women's Launch Pad Mentoring Program	2009-2010

SELECTED WORKSHOPS AND SHORT COURSES

The Community WRF-Hydro Modeling System Training Workshop — 2018
National Center for Atmospheric Research, Boulder, CO

UCAR/NCAR Equity and Inclusion (UNEION) 101 Training Series — 2018
National Center for Atmospheric Research, Boulder, CO

Earth Educators' Rendezvous Preparing for an Academic Career Workshop — 2018
University of Kansas, Lawrence, KS

The Functionally Assembled Terrestrial Ecosystem Simulator (FATES) Tutorial — 2018
National Center for Atmospheric Research, Boulder, CO

Low Environmental Impact SRM Experiments Workshop — 2016
Institute for Advanced Sustainability Studies, Potsdam, Germany

Solar Geoengineering Research Residency — 2015
Harvard University, Cambridge, MA

10th Annual Plant Biology Symposium — 2015
Arnold Arboretum, Boston, MA

Community Land Model (CLM) Tutorial — 2014
National Center for Atmospheric Research, Boulder, CO

ComSciCon-local Communicating Science Workshop — 2014
Harvard University, Cambridge, MA

Shaping Policy with Science, Graduate Student Council Short Course — 2014
Harvard University, Cambridge, MA

Fourth Interdisciplinary Summer School on Geoengineering — 2013
Harvard University, Cambridge, MA

Introduction to Microeconomics, Graduate Consortium Short Course — 2013
Harvard University, Cambridge, MA

Global Climate Coalition at UNFCCC COP15 — 2009
University of Copenhagen, Copenhagen, Denmark

PROFESSIONAL AFFILIATIONS

American Geophysical Union, American Physical Society, Earth Science Women's Network

TECHNICAL SKILLS

Languages: Unix, Fortran, C, Objective C/C++, HTML, LaTeX
Modeling Tools: NetCDF, HDF4/5, HPC, Machine Learning, Open MPI, NCAR CESM/CLM
Development Tools: Git/GitHub, Subversion
Scientific Visualization & Analysis: R, NCL/NCO, Python, Matlab, Mathematica