

## Katherine Dagon, PhD

ASP Postdoctoral Fellow, National Center for Atmospheric Research  
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<https://katiedagon.github.io>

### RESEARCH APPOINTMENTS

#### National Center for Atmospheric Research

ASP Postdoctoral Fellow, Climate and Global Dynamics

Boulder, CO  
2017 – present

### EDUCATION

#### Harvard University

Ph.D., Earth and Planetary Sciences

A.M., Earth and Planetary Sciences

Harvard Graduate Consortium on Energy and Environment

Cambridge, MA  
2017  
2015  
2012 – 2015

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

#### Brown University

B.S., Mathematics-Physics, graduation with Honors

Providence, RI  
2010

### RESEARCH EXPERIENCE

#### Harvard University

Ph.D. Researcher, Department of Earth and Planetary Sciences

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

Cambridge, MA  
2011 – 2017

#### Brown University

Undergraduate Researcher, Department of Physics

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

Providence, RI  
2009 – 2010

### TEACHING EXPERIENCE

#### Harvard University

Teaching Fellow, Department of Earth and Planetary Sciences

- 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)*

Cambridge, MA  
2013 – 2016

#### Brown University

Teaching Assistant, Department of Mathematics

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

Providence, RI  
2009

Math Peer Tutor, Brown University Tutoring Program

- Tutored undergraduate students in Math and Applied Math courses.

2008

## PROFESSIONAL EMPLOYMENT

**State of Connecticut Department of Energy and Environmental Protection** Hartford, CT  
Seasonal Resource Assistant September 2010 – June 2011,  
Solid Waste and Recycling Program and Summer 2007, 2008

**UTC Power** South Windsor, CT  
Intern, NASA-UTC Internship Program Summer 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.**, 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, December 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, July 2017.

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

**Dagon, K.**, and D. P. Schrag, Exploring the Effects of Solar Radiation Management on Water Cycling in a Coupled Land-Atmosphere Model. *American Geophysical Union Fall Meeting*, San Francisco, CA, poster presentation, December 2015.

**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, November 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>.

## HONORS AND AWARDS

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

## SERVICE AND OUTREACH

NCAR ASP Fellows Networking Committee	2017 – present
Reviewer, Journal of Hydrometeorology	2017 – present
APS GPC Program Committee	2017 – present
Twin Peaks Charter Academy Guest Scientist	2017
NCAR Super Science Saturday Volunteer	2017
Building a Greener Idaho Radio Show Guest	2017
Plants and Climate Seminar Series Organizer	2015 – 2016
EPS Grad Student Field Trip Organizing Team	2014
There's a Scientist in My Classroom! Guest Lecturer	2014
Science in the News Event Organizer and Lecturer	2013 – 2016
EPS Agassiz Visiting Lecturer Committee	2013 – 2014
Harvard Summer School on Geoengineering Organizing Committee	2013
ClimaTea Seminar Series Co-organizer	2012

## PROFESSIONAL EXPERIENCE

Low Environmental Impact SRM Experiments Workshop, Potsdam, Germany	September 2016
Harvard GSAS Science Policy Group Annual Trip, Washington, D.C.	April 2016
Active Learning in the Sciences, Bok Center Teaching Seminar, Cambridge, MA	August 2015
Solar Geoengineering Research Residency, Cambridge, MA	May 2015
NCAR Community Land Model Tutorial, Boulder, CO	February 2014
ComSciCon-local, Communicating Science Workshop, Cambridge, MA	January 2014
Shaping Policy with Science, Graduate Student Council Mini-Course, Cambridge, MA	January 2014
Global Climate Coalition Conference on Campus Sustainability, Copenhagen, DK	December 2009

## MENTORING ACTIVITIES

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

## PROFESSIONAL AFFILIATIONS

American Association for the Advancement of Science, American Meteorological Society, 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, Open MPI, NCAR CESM/CLM  
*Scientific Visualization & Analysis:* R, NCL/NCO, Matlab, Mathematica