

# ALICE ALPERT

MIT PhD candidate 2016

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**Statement of purpose:** Understand the policy process and advance the use of science to inform sound policy in the public interest

<b>EDUCATION</b>	<b>Massachusetts Institute of Technology (MIT), Cambridge, MA</b> PhD., <i>MIT/Woods Hole Oceanographic Institution (WHOI) Joint Program in Oceanography</i> <ul style="list-style-type: none"><li>• 4.7/5.0 GPA; relevant coursework: Marine Policy, Science Writing, Science Policy Bootcamp, Ocean Law, Applied Statistics</li><li>• Dissertation: "North Atlantic Sea Surface Temperatures during the Little Ice Age using Multi-Element Coral Paleothermometry"</li><li>• Developing new method to estimate past temperature from coral skeletons to estimate global temperature sensitivity to climate change and create records of climate phenomena such as El Nino</li><li>• Presented results at 5 conferences, one paper published, one paper submitted, supervised expedition to Bermuda</li></ul>	Exp. 2016
	<b>Brown University, Providence, RI</b> B.S., Geological Sciences magna cum laude with department honors, double major in Architectural Studies <ul style="list-style-type: none"><li>• 3.92/4.0 GPA, Senior Honors Thesis: "Quartz as a paleo-wind proxy in the North Atlantic"</li></ul>	2009
<b>SELECTED HONORS &amp; AWARDS</b>	<b>National Science Foundation Graduate Research Fellow</b> , \$120,000 NSF Ocean Ventures Fund recipient, \$15,000, WHOI Department of Geological Sciences senior award for research and academics, Brown University Phi Beta Kappa, Alpha Chapter of Rhode Island, Brown University Sigma Xi, Brown University Chapter	2011-2014 2012 2009 2009 2009
<b>PROFESSIONAL</b>	<b>Long Term Ecological Research (LTER)</b> , Palmer Station, Antarctica <i>Research assistant (2009-2010) and field team leader (2010-2011)</i> <ul style="list-style-type: none"><li>• Supervised 2 research assistants in sample collection and assessment of microbial growth shifts</li><li>• Presented poster to &gt;12 groups of public visitors to educate about Antarctic research and climate science</li><li>• Blogged in 27 posts describing impacts of climate change on Antarctic marine ecosystem</li></ul> <b>Department of Geological Sciences, Brown University</b> , Providence, RI <i>Laboratory technician</i> <ul style="list-style-type: none"><li>• Operated gas chromatograph and infrared spectrometer for organic and inorganic geochemical analyses</li></ul> <b>The Energy and Resources Institute</b> , Karnataka, India <i>Intern</i> <ul style="list-style-type: none"><li>• Evaluated innovative water filtration system for purifying contaminated river water, met with stakeholders</li></ul> <b>National Park Service Division of Interpretation</b> , Yellowstone National Park, WY <i>Intern</i> <ul style="list-style-type: none"><li>• Designed and performed 3 talks and guided walks per week about geology and ecology to &gt;50 people</li><li>• Educated and enriched broad audience using a variety of communication techniques</li></ul>	2009-2011 2006-2011 2010 2009
<b>POLICY / COMMUNICATION</b>	<b>Broader Impacts Group, MIT &amp; WHOI</b> , Cambridge and Woods Hole, MA <i>Co-founder, Co-President</i> <ul style="list-style-type: none"><li>• Initiated organization to develop students' oral, written, and graphic communication skills for &gt;100 students</li><li>• Spearheaded &gt;20 events: 6 skills workshops by media and communication professionals, 4 outreach events to apply new skills, 5 events highlighting science careers outside of the lab, mediated panel discussion of faculty and industry members</li><li>• Posters at Communicating Science Workshop (2013), Ocean Sciences Meeting (2014), Ocean Literacy Colloquium (2014)</li></ul> <b>MIT Water, MIT</b> , Cambridge MA <i>Water Summit panel lead</i> <ul style="list-style-type: none"><li>• "Thriving Amid Change" summit for 300 attendees, managing budget \$30,000</li><li>• Lead and moderated panel on facilitating partnerships for water resource management and adaptation</li></ul> <b>Climate Feedback</b> , Cambridge, MA <i>Contributor</i> <ul style="list-style-type: none"><li>• Wrote comments for online publication on 6 media articles about climate change, describing factual errors and flawed arguments, providing additional information and scholarly references</li><li>• Applying technical knowledge of climate science to reach broad audience and reduce misinformation</li></ul> <b>William Mitchell College of Law Expert Witness Training Academy</b> , Minneapolis, MN <i>Invited fellow</i> <ul style="list-style-type: none"><li>• Honed communication skills in training for climate scientists to give expert witness testimony in trials and hearings</li></ul>	2011- present 2015 2014- 2015 2015

	<b>American Meterological Society</b> , Washington, DC <i>NSF Student Fellow at Summer Policy Colloquium</i>	2015
	• Funded to attend immersive training in science policy and introduction to future career paths	
	<b>UN Environmental Programme</b> , Geneva, Switzerland <i>MIT student delegate</i>	2013
	• Analyzed negotiation of UN treaty with 147 nations on use of mercury, blogged in 5 posts about treaty process and results	
	• Presented poster “Mercury Science Bulletin – Recent Findings from Scientific Research” at negotiation	
	<b>Intergovernmental Panel on Climate Change AR5</b> , Cambridge, MA <i>Contributor</i>	2012-2013
	• Participated and contributed to MIT seminar on IPCC AR5 draft text	
	• Submitted 3 comments to IPCC on figures in Summary for Policy Makers	
	<b>Congressional Visit Day, MIT Science Policy Initiative</b> , Washington, DC <i>MIT student delegate</i>	2012
	• Trained in effective science communication to policymakers by Union of Concerned Scientists and AAAS	
	• Researched and drafted policy briefings, lobbied 7 members of US Congress to support R&D funding	
	<b>Grassroots Campaigns</b> , Berkeley, CA <i>Canvasser</i>	2004
	• Canvassed for the Democratic National Committee, interacting with residents from a variety of backgrounds	
<b>SERVICE</b>	<b>Safety Committee, Department Marine Geology and Geophysics, WHOI</b> <i>Student representative</i>	2015-present
	<b>Department of Earth, Atmospheric, and Planetary Sciences, MIT</b> <i>Peer mentor</i>	2013-present
<b>PEER-REVIEWED PUBLICATIONS</b>	“Comparison of equatorial Pacific sea surface variability and trends with Sr/Ca records from multiple corals,” Alpert, A., Cohen, A., Oppo, D., DeCarlo T., Gove, J., and Young, C., <i>Paleoceanography</i> , 2016. “Coral Sr-U Thermometry,” DeCarlo T., Gaetani G., Cohen, A., Foster, G., Alpert, A, and Stewart, J., <i>Paleoceanography</i> , <i>in review</i>	
<b>NON-ACADEMIC PUBLICATIONS</b>	“Discovery at the Summer Policy Colloquium” <i>American Meterological Society blog</i> , awaiting online publication “Coral-current connections,” <i>Oceanus</i> magazine, October 20, 2014 “Climate Codes,” <i>Natural History</i> magazine, July 1, 2013 “Corralling coral in the Pacific,” <i>MIT Tech</i> newspaper, November 20, 2012 “Mercury Science and Policy at MIT” <a href="http://mercurypolicy.scripts.mit.edu/blog/">http://mercurypolicy.scripts.mit.edu/blog/</a> “Adventures with My Aunt Arctica” <a href="http://adventureswithmyauntarctica.blogspot.com/">http://adventureswithmyauntarctica.blogspot.com/</a>	
<b>CONFERENCES</b>	<b>American Geophysical Union Fall Meeting</b> , San Francisco, CA • Oral presentation: “Comparison of Equatorial Pacific Sea Surface Variability and Trends with Sr/Ca Records from Multiple Corals”	2015
	<b>Ocean Sciences Meeting</b> , Honolulu, HI • Oral presentation: “Central Equatorial Pacific records of Pacific Equatorial Undercurrent variability: Testing the limits of coral proxies”	2014
	• Poster: “Broader Impacts Group: Student-led efforts to bring science communication into the graduate education process”	
	<b>Graduate Climate Conference</b> , Woods Hole, MA • Oral presentation: “Central Equatorial Pacific coral records of Equatorial Undercurrent Variability”	2013
	<b>International Conference on Paleoceanography</b> , Sitges, Spain • Poster: “Coral records of Equatorial Pacific variability”	2013
	<b>American Geophysical Union Fall Meeting</b> , San Francisco, CA • Poster: “Garnet Polycrystals in a Barrovian Sequence in Dutchess County, New York”	2008
	<b>American Geophysical Union Fall Meeting</b> , San Francisco, CA • Poster: “Global and Regional Controls on Alkenone Sea Surface Temperature and Productivity Records for the Pleistocene from the Arabian Sea.”	2007
<b>SKILLS</b>	<b>Lab:</b> Inductively Coupled Plasma Mass Spectrometer analysis of solids and solutions, Scanning Electron Microscopy, extraction and analysis of organic compounds using gas chromatography, flow cytometry <b>Field:</b> SCUBA scientific diving certification, coral drilling and collection, small boat operation, water collection for carbon, nutrients <b>Technology:</b> MATLAB, R, Microsoft Office, Adobe Illustrator <b>Teaching:</b> 3 semesters as a teaching assistant for introductory level geology courses for a broad audience	