

Kelly Klima

Climate Adaptation Policy Advisor, CCAP
750 First Street, NE
Washington, D.C. 20002

<https://www.andrew.cmu.edu/user/kklima/>
kklima@ccap.org
1.202.621.5668

Education

Carnegie Mellon University	Pittsburgh, PA	
Doctor of Philosophy, Engineering and Public Policy	4.0 / 4.0	December 2011
Decision Analysis of Hurricane Modification Techniques		
Massachusetts Institute of Technology	Cambridge, MA	
Master of Science, Earth, Atmosphere & Planetary Science	4.3 / 5.0	December 2008
Effects of Variable Wind Stress on Ocean Heat Content		
Master of Science, Aeronautics and Astronautics	4.6 / 5.0	June 2005
Assessment of a Global Contrail Modeling Method and Operational Strategies for Contrail Mitigation		
California Institute of Technology	Pasadena, CA	
Bachelor of Science Mechanical Engineering	3.3 / 4.0	June 2003
GRES Q:800 A:800 V:630		

Experience

Climate Adaptation Policy Advisor	CCAP, Washington, DC	2012-present
• Best practices in adaption and public private partnerships		
Post-Doc, EPP	CMU, Pittsburgh, PA	2011-present
• Decision analysis of hurricane modification techniques		
Graduate Student, EPP	CMU, Pittsburgh, PA	2008-2011
• Decision analysis of hurricane modification techniques		
Research Assistantship, EAPS	MIT, Cambridge, MA	2005- 2008
• Sensitivity of ocean heat uptake to transient wind stress		
• Effects of interactive gyre transport on ocean box models		
Research Assistantship, Dept. Aero Astro	MIT, Cambridge, MA	2003-2005
• Assessment of a global contrail modeling method		
• Assessment of operational strategies for contrail mitigation		

Internships

Darpa Grand Challenge	Caltech, Pasadena, CA	2003
• Win a 250-mile race with fully autonomous off-road ground vehicle in <10 hours		
Multi-Vehicle Wireless Testbed	Caltech, Pasadena, CA	2001 - 2002
• Constructed and aided in design production and optimization of self-guided vehicles		
Acoustics Research, Engines and Systems	Honeywell, Phoenix AZ	2001
• Maximized liner noise attenuation, researched modal decomposition of AS907 fan		
Global Boreal Forest Mapping Project	JPL, La Cañada, CA	2000
• Analyzed datatapes, constructed database, designed web page		
Villanova Summer Research Institute	Villanova University, Villanova, PA	1998
• Modeled diseases; “Genetic Trends of Virally Induced Cancers”		

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Professional Activities

American Association for the Advancement of Science	2009 - present
American Chemical Society	2009 - present
American Geophysical Union	2006 - present
American Mensa	2009 - present
American Meteorological Society	2006 - present
Carnegie Mellon University Graduate Student Assembly	2009 - present
European Association of Environmental and Resource Economists	2011 - present
Scientists and Engineers for America (helped found)	2009 - present
Sigma Xi	2005 - present
Society of Women Engineers	1999 - present
Triple Nine Society	2009 - present

Leadership

CMU Summer Center for Climate, Energy, and Environmental Decision Making (SUCCEED)	
Director, ~\$7K budget	2011 - present
<ul style="list-style-type: none">• Create a one week summer school curriculum for 9th grade students• Recruit 15-20 students, ~5 K-12 teachers, ~10 PhD students	
American Geophysical Union Natural Hazard Executive Committee	
Student Representative	2010 - present
<ul style="list-style-type: none">• Represent student interests to the Natural Hazard Executive Committee• Obtain and inform ≥ 3 judges for each of 76 student presentations at Fall 2010 meeting	
Human Services Volleyball League, North Side YMCA, and others	
Team Captain (various Volleyball Leadership Awards)	2009 - present
<ul style="list-style-type: none">• Identify and maintain participation of 6 highly talented volleyball enthusiasts• Maintain positive atmosphere through balance of personalities and work load	
CMU Graduate Student Assembly	
Vice President of Campus Affairs, shared \$650K+ budget	2009 - 2010
<ul style="list-style-type: none">• Coordinate efforts to further the rights and privileges of the graduate student body• Balance the fulfillment of 60+ participants' requirement among 20+ committees	
CMU Chapter of Scientists and Engineers for America	
Executive board, founding member	2009 - present
<ul style="list-style-type: none">• Promote participation of CMU scientists and engineers in U.S. policy-making process	
MIT Residential Life Programs	
Graduate Coordinator (2006 Outstanding Graduate Coordinator Award)	2005 - 2008
<ul style="list-style-type: none">• Represented dorm of 189 residents to Housing Office, Residential Life Programs, et al.• Solved interpersonal problems, roommate disputes, and interpreted policies	
Caltech Residential Life Programs	
Upper Class Counselor, Lloyd House	2002 - 2003
<ul style="list-style-type: none">• Counseled and advised ~15 students regarding personal and academic difficulties	
Health Advocate	2001 - 2003
<ul style="list-style-type: none">• Trained 90+ hours in medical problems, first-aid, counseling, and crisis intervention• Responded to situations in campus community at all hours of the day for 2 years	

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Publications and Presentations

- Klima, K.; Morgan, M.G. Thoughts on whether government should steer a tropical cyclone if it could. Accepted to *Journal of Risk Research*.
- Klima, K.; Lin, N.; Emanuel, K.; Morgan, G.; Grossman, I. Hurricane modification and adaptation in Miami-Dade County, Florida. Poster at AGU Science Policy Conference, 2012.
- Klima, K.; Lin, N.; Morgan, G.; Emanuel, K. Hurricane modification and adaptation in Miami-Dade County, Florida. *ES&T*, 2012, 45 (2), pp. 636-642.
- Klima, K., Bruine de Bruin, W.; Morgan, M.G.; Grossmann, I. Public Perceptions of Hurricane Modification Techniques. *Risk Analysis*, 2011.
- Klima, K., Morgan, M.G.; Grossmann, I.; Emanuel, K. Does it Make Sense to Modify Tropical Cyclones? A Decision Analytic Assessment. *ES&T*, 2011, 45 (10), pp 4242-4248.
- Klima, K., I. Grossman, M.G. Morgan. Does Tropical Cyclone Modification Make Sense? A Decision Analytic Perspective. Oral presentation at AGU Fall meeting, 2010 (Awarded Outstanding Student Paper Award). Oral presentation at Technology, Management and Policy Consortium, 2010. (Awarded first prize for Best Presentation.)
- Klima, K., I. Grossman, M.G. Morgan. Does Tropical Cyclone Modification Make Sense? A Decision Analytic Perspective. Poster at AGU conference, 2009.
- Klima. Does Tropical Cyclone Modification Make Sense? A Decision-Analytic Perspective. CMU, 2011.
- Klima. Effects of Variable Wind Stress on Ocean Heat Content. MIT, 2008.
- Kim, Brian Y. et al. System for assessing Aviation's Global Emissions (SAGE), Part 1: Model description and inventory results. *Transportation Research*, v.12D, n.5, July 2007. ISSN: 1361-9209
- Klima, K., I. Waitz. Assessment of a Global Contrail Modeling Method. TAC Conference Proceedings 2006.
- Kim, B., et al. SAGE Version 1.5: Global Aviation Emissions for 2000 through 2004. September 2005. FAA-EE-2005-02.
- Kim, B., et al. SAGE Version 1.5: Validation, Assessment, Model Assumptions, and Uncertainties. September 2005. FAA-EE-2005-03
- Kim, B., et al. SAGE Version 1.5: System Revision History. September 2005. FAA-EE-2005-04.
- Klima. Assessment of a Global Contrail Modeling Method and Operational Strategies for Contrail Mitigation. MIT, 2005.
- Atherton, Klima, Plas. DC-9: A Case Study. MIT Course 16.885, 2004.

Relevant Curriculum

- Climate & Chemistry:** Climate Dynamics, Paleoceanography, Chemistry, Atmospheric Radiation, Rotating Flows, QG Circulation, Atmospheric Physics, Meteorology, Hydrology,
- Engineering:** Fluids, Thermodynamics, Heat Transfer, Aeronautics, Material Science, Statics, Dynamics, Kinematics, Controls, Design, Nuclear Power, Embedded System Design, Solid-State Electronics, MEMS, Propulsion
- Math / Physics:** Linear Algebra, Probability, Ordinary & Partial Differential Equations, Statistics, Classical Mechanics, Electromagnetism, Statistical Physics, Waves, Quantum Mechanics
- Social Sciences:** Economics of Global Warming, Managerial and Engineering Economics, Microeconomics, Policy Analysis

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Skills

Operating Systems: Windows 95, 98, 2000, NT, XP, Linux, Macintosh

Software Packages & Tools: Maple, MS Office 2000, Wordperfect, Stata, Analytica, SPSS

Programming: Matlab, GIS, HTML, some C, C++

Other: Participated in Six Sigma Plus and Counseling workshops, certified at First Responder level and in Red Cross emergency services