

Dr. Radley Horton
Curriculum Vitae

Columbia University Center for Climate Systems Research/
NASA Goddard Institute for Space Studies
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RESEARCH INTERESTS AND EXPERTISE

Sea level rise, extreme climate events, adaptation, greenhouse gas emissions reduction policy

EDUCATION

2007 Ph.D., Earth and Environmental Sciences, Columbia University, New York, NY
2001 M.A., Earth and Environmental Sciences, Columbia University, New York, NY
1995 B.A., Environmental Policy Studies, Brown University, Providence, RI

PROFESSIONAL APPOINTMENTS

2007- Associate Research Scientist, Center for Climate Systems Research, Columbia University
2013- Adjunct Professor, Sustainable Development Department, Columbia University

AWARDS/RESEARCH GRANTS (LEAD PI OR UNIVERSITY LEAD PI ONLY)

2015-2020 NOAA-RISA Program, “Consortium for Climate Risk in the Urban Northeast (CCRUN)”, Lead-PI: R.M. Horton
2012-2019 Department of Interior/United States Geological Survey, “Northeast Climate Science Center (NECSC)”, Columbia Lead-PI: R. M. Horton
2012-2017 NSF Climate Change Education Partnership (CCEP), “Climate and Urban Systems Partnership”, Columbia Lead-PI: R. M. Horton
2015-2017 World Wildlife Fund, “Adaptation for Development and Conservation (ADVANCE) Partnership”, Columbia Lead PI: R. M. Horton
2015-2016 World Wildlife Fund, “Integrating Climate Risk Information to WWF's Natural Capital Assessment in Myanmar”, Lead PI: R. M. Horton

Prior funding as Project Lead-PI or Columbia Lead-PI

- 2014-2015 Consolidated-Edison, “Temperature Projections to Support Impact Analysis on Infrastructure and Demand”, Lead-PI: R.M. Horton
- 2014-2015 World Wildlife Fund, “WWF’s Asia’s High Mountain’s Project - Climate risk information, research and preparation for Nepal workshop (Lead PI: R. M. Horton
- 2013-2014 NYSERDA, “Updated Climate Scenarios for New York State”, Lead-PI: R. M. Horton
- 2013-2014 USGS, “Facilitating Regional and Local Decision-making for Managing Coastal Wetlands”, Columbia Lead-PI: R. M. Horton
- 2013 USGS, “A Research and Decision Support Framework to Evaluate Sea Level Rise Impacts in the Northeast U.S.”, Columbia Lead-PI: R.M. Horton
- 2012-2013 National Park Service, “Climate Science Synthesis and Analysis to Support NPS Scenario Workshop”, Lead-PI: R. M. Horton
- 2010-2012 NSF Climate Change Education Partnership (CCEP), “Climate and Urban Systems Partnership Pilot Project”, Columbia Lead-PI: R.M. Horton

SELECT PROFESSIONAL ACTIVITIES

Select Advisory Experience, Task Force and Project Membership (Within Past Three Years)

- 2016 Lead Author, Climate Science Report, US Global Change Research Program, Fourth U.S. National Climate Assessment and Sustained Assessment
- 2015- Climate Scenarios Task Force Member, US Global Change Research Program, Fourth U.S. National Climate Assessment and Sustained Assessment
- 2015- Sea Level Rise Task Force Member, US Global Change Research Program, Fourth U.S. National Climate Assessment and Sustained Assessment
- 2015- Advisory Board Member, Vulnerability, Impacts, and Adaptation and Climate Services (VIACS)
- 2015- Advisory Board Member, Great Lakes Integrated Sciences and Assessments (GLISA) NOAA-RISA Project
- 2015- Climate and Hydrologic Events Team and New York City Team Member, NSF-funded Urban Resilience to Extremes Sustainability Research Network (UREx SRN)
- 2014- Advisory Committee Member, Columbia University Initiative on Extreme Weather and Climate
- 2014- Science Development Committee Member, Jamaica Bay Science and Resilience

Institute

- 2013- Expert Witness, e.g., NY State Public Service Commission, ‘Rate Case’ involving Consolidated Edison
- 2012- Scientific Advisor, Showtime television series “Years of Living Dangerously”
- 2009- Deputy to Lead, NASA Climate Adaptation Science Investigator Working Group
- 2008- Climate Science Lead, New York City Panel on Climate Change
- 2008- Author and Member, Urban Climate Change Research Network, First and Second Assessment Reports for Climate Change and Cities
- 2015 Member and Author, U.S. National Climate Assessment Special Report on Health Impacts of Climate Change
- 2012-2014 Climate Science Applications Team Member, National Climate Predictions and Projections Platform
- 2011-2014 Convening Lead Author, Northeast Region, Third U.S. National Climate Assessment
- 2011-2014 Author, Research Agenda for the Programme on Vulnerability, Impacts and Adaptation to Climate Change (PROVIA)
- 2013 Curriculum Adviser, USAID-funded Certificate Program in Forest Conservation and Climate Mitigation, University of Indonesia
- 2013 Department of Interior Strategic Sciences Group Member, Operational Group Sandy
- 2013 Advisory Panel Member, Department of Planning “Neighborhood Gamechangers” Sandy Community Recovery Program
- 2013 Advisor, NYC Department of Environmental Protection, Water Supply and Climate Change Program
- 2011-2012 Member, Sea Level Rise Task Force, Third U.S. National Climate Assessment

Select Conference and Workshop Convening

- 2014 Co-Convenor, “Connecting Climate Projections to Responses in Coastal and Continental Shelf Environments”, Oral Session at 2014 American Geophysical Union Annual Meeting, San Francisco, CA, December 16, 2014
- 2013 Convenor and Co-Organizer, “Using Climate Information”, Plenary Session at the 2013 NOAA-RISA Annual Meeting, San Diego, CA, January 16, 2013

Co-Convener and Co-Organizer, “The Urban Climate Change Research Network”, Special Session at the 10th Ecocity World Summit, Nantes, France, September 26, 2013

2012 Co-Convener and Co-Organizer, PROVIA Research Prioritization for Least Developed Country Policymakers Meeting, Insel House, Bonn, Germany, May 22, 2012

Convener and Co-Organizer, “West Virginia Listening Session in Support of the 3rd U.S. National Climate Assessment”, Morgantown, WV, February 16, 2012

2011 Co-Convener and Co-Organizer, “Climate Change in the Northeast Region: A Kickoff Workshop in Support of the 3rd U.S. National Climate Assessment”, Columbia University, November 17-18, 2011

Co-Organizer, PROVIA Research Prioritization for Policymakers Meeting, Department of Environment, Food, and Rural Affairs (DEFRA), Nobel House, London, UK, November 2, 2011.

Co-Organizer, PROVIA Research Prioritization for Policymakers Meeting, Keck Center, The National Academies, Washington, D.C., October 28, 2011.

Co-Convener and Co-Organizer, “Climate Change 101 for Risk Management and Decision Making” Half-day session at Environment, Energy Security and Sustainability Symposium of the National Defense Industrial Organization, New Orleans, LA, May 10, 2011.

Reviewing

Journals: *Bulletin of the American Meteorological Society*, *Journal of Climate*, *Nature Climate Change*, *Nature Scientific Reports*, *Climate Dynamics*, *Climatic Change*, *Journal of Geophysical Research—Atmospheres*, *Journal of Applied Meteorology and Climatology*, *International Journal of Climatology*, *Earth’s Future*, *Journal of Coastal Research*, *Regional Environmental Change*, *Water Resources Research*, *Natural Hazards*, *Health Security*, and *Environmental Management*

Proposal Review Panels: NASA ROSES, NASA CASI

Professional Memberships

American Geophysical Union
American Meteorological Society

TEACHING EXPERIENCE

Courses

- 2013- Instructor/Faculty Advisor (Two semesters per year): *Capstone Workshop in Sustainable Development (SDEV3280)* Earth Institute, Columbia University, New York, NY
Mean Evaluation as an Instructor: 4.6, on a scale of 1-5
- 2007- Guest lecturer in 10+ graduate and undergraduate courses at Columbia and other New York City universities and colleges

Graduate Students

2013- Ethan Coffel, Department of Earth and Environmental Sciences, Columbia University

2014- Colin Raymond, Department of Earth and Environmental Sciences, Columbia University

Postdoctoral Mentee

2015- Justin Mankin, Columbia University Earth Institute Post-Doc Fellow

PUBLICATIONS

Peer-Reviewed Articles

Horton, R.M., E. Coffel, C. Lesk, J. Mankin, and C. Raymond (2016), A Review of Recent Advances in Heat Wave Research, *Current Climate Change Reports*.

Petkova, E. P., Vink, J. K., Horton, R. M., Gasparrini, A., Bader, D. A., Francis, J. D., & Kinney, P. L. (2016). Towards more comprehensive projections of urban heat-related mortality: estimates for New York City under multiple population, adaptation, and climate scenarios. *Environmental health perspectives*.

Lentz, E., E.R. Thieler, N.G. Plant, S.R. Stippa, R.M. Horton, and D.B. Gesch(2016), Evaluation of dynamic coastal response to sea-level rise modifies inundation likelihood, *Nature Climate Change*.

Winter, J. M., Beckage, B., Bucini, G., Horton, R. M., & Clemins, P. J. (2016). Development and Evaluation of High-Resolution Climate Simulations over the Mountainous Northeastern United States. *Journal of Hydrometeorology*, 17(3), 881-896.

Li, T., Horton, R. M., Bader, D. A., Zhou, M., Liang, X., Ban, J., ... & Kinney, P. L. (2016). Aging will amplify the heat-related mortality risk under a changing climate: projection for the elderly in Beijing, China. *Scientific reports*, 6.

Ngo, N. S., & Horton, R. M. (2016). Climate change and fetal health: The impacts of exposure to extreme temperatures in New York City. *Environmental Research*, 144, 158-164.

Horton, R. M., Coffel, E. D., Winter, J. M., & Bader, D. A. (2015). Projected changes in extreme temperature events based on the NARCCAP model suite. *Geophysical Research Letters*, 42(18), 7722-7731.

Horton, R.M., D. Bader, Y.Kushnir, C. Little, R. Blake, and C. Rosenzweig (2015). Climate Observations and Projections. *Annals of the New York Academy of Sciences* 1336 (1), 18-35.

Horton, R.M., C. Little, V. Gornitz, D. Bader, and M. Oppenheimer (2015). Sea Level Rise and Coastal Storms. *Annals of the New York Academy of Sciences* 1336 (1), 36-44.

Orton, P., Vinogradov, S., Georgas, N., Blumberg, A., Lin, N., Gornitz, V., ... & Horton, R. (2015). New York City Panel on Climate Change 2015 Report Chapter 4: Dynamic Coastal Flood Modeling. *Annals of the New York Academy of Sciences*, 1336(1), 56-66.

Little, C. M., Horton, R. M., Kopp, R. E., Oppenheimer, M., Vecchi, G. A., & Villarini, G. (2015). Joint projections of US East Coast sea level and storm surge. *Nature Climate Change*.

- Liu, J., Song, M., Horton, R. M., & Hu, Y. (2015). Revisiting the potential of melt pond fraction as a predictor for the seasonal Arctic sea ice extent minimum. *Environmental Research Letters*, *10*(5), 054017.
- Li, T., Ban, J., Horton, R. M., Bader, D. A., Huang, G., Sun, Q., & Kinney, P. L. (2015). Heat-related mortality projections for cardiovascular and respiratory disease under the changing climate in Beijing, China. *Scientific reports*, *5*.
- Little, C., R.M. Horton, R. Kopp, M. Oppenheimer, and S. Yip (2015): Uncertainty in 21st Century CMIP5 Sea Level Projections. *Journal of Climate* *28* (2), 838-852.
- Coffel, E., & Horton, R. (2015). Climate change and the impact of extreme temperatures on aviation. *Weather, Climate, and Society*, *7*(1), 94-102.
- Schwartz, J., M. Lee, P. L Kinney, S. Yang, D. Mills, M. Sarofim, R. Jones, R. Streeter, A. St. Juliana, J. Peers and R. M. Horton (2015). Projections of temperature-attributable deaths in 209 U.S. cities using a cluster-based Poisson approach. *Environmental Health*, *14*(1), 85.
- Horton, R. M., & Liu, J. (2014). Beyond Hurricane Sandy: What Might the Future Hold for Tropical Cyclones in the North Atlantic? *Journal of Extreme Events*, *1*(01).
- Rosenzweig, C., Horton, R. M., Bader, D. A., Brown, M. E., DeYoung, R., Dominguez, O., ... & Toufexis, K. (2014). Enhancing Climate Resilience at NASA Centers: A Collaboration between Science and Stewardship. *Bulletin of the American Meteorological Society*, *95*(9), 1351-1363.
- Kopp, R. E., Horton, R. M., Little, C. M., Mitrovica, J. X., Oppenheimer, M., Rasmussen, D. J., ... & Tebaldi, C. (2014). Probabilistic 21st and 22nd century sea-level projections at a global network of tide-gauge sites. *Earth's Future*, *2*(8), 383-406.
- Petkova, E. P., Bader, D. A., Anderson, G. B., Horton, R. M., Knowlton, K., & Kinney, P. L. (2014). Heat-related mortality in a warming climate: Projections for 12 US cities. *International journal of environmental research and public health*, *11*(11), 11371-11383.
- Guilbert, J., Beckage, B., Winter, J. M., Horton, R. M., Perkins, T., & Bomblies, A. (2014). Impacts of Projected Climate Change over the Lake Champlain Basin in Vermont. *Journal of Applied Meteorology and Climatology*, *53*(8), 1861-1875.
- Li, T., Horton, R. M., & Kinney, P. L. (2013). Projections of seasonal patterns in temperature related deaths for Manhattan, New York. *Nature Climate Change*.
- Liu, J., Song, M., Horton, R. M., & Hu, Y. (2013). Reducing spread in climate model projections of a September ice-free Arctic. *Proceedings of the National Academy of Sciences*, *110*(31), 12571-12576.
- Barsugli, J. J., Guentchev, G., Horton, R., M., Wood, A., Mearns, L. O., Liang, X. Z., Winkler, J., Dixon, K., Hayhoe, K., Rood, R.B., Goddard, L., Ray, A., Buja, L. and Ammann, C. (2013). The Practitioner's Dilemma: How to Assess the Credibility of Downscaled Climate Projections. *Eos, Transactions American Geophysical Union*, *94*(46), 424-425.
- Ruane, A. C., Cecil, L. D., Horton, R. M., Gordón, R., McCollum, R., Brown, D., ... & Rosenzweig, C. (2013). Climate change impact uncertainties for maize in Panama: Farm information, climate projections, and yield sensitivities. *Agricultural and Forest Meteorology*, *170*, 132-145.
- Ahmed, K.F., G. Wang, J. Silander, A.M. Wilson, J.M. Allen, R. Horton, and R. Anyah, 2013: Statistical downscaling and bias correction of climate model outputs for climate change impact assessment in the U.S. northeast. *Glob. Planet. Change*, *100*, 320-332.
- Ruane, A. C., Major, D. C., Winston, H. Y., Alam, M., Hussain, S. G., Khan, A. S., ... & Rosenzweig, C. (2013). Multi-factor impact analysis of agricultural production in Bangladesh with climate change. *Global Environmental Change*, *23*(1), 338-350.

- Petkova, E. P., Horton, R. M., Bader, D. A., & Kinney, P. L. (2013). Projected Heat-Related Mortality in the US Urban Northeast. *International journal of environmental research and public health*, 10(12), 6734-6747.
- Liu, J., J. A. Curry, H. Wang, M. Song, and R. M. Horton. 2012. Impact of declining Arctic sea ice on winter snowfall. *Proceedings of the National Academy of Sciences USA* 109 (2012).
- Horton, R.M., V. Gornitz, D.A. Bader, A.C. Ruane, R. Goldberg, and C. Rosenzweig, 2011: Climate hazard assessment for stakeholder adaptation planning in New York City. *J. Appl. Meteorol. Climatol.*, 50, 2247-2266, doi:10.1175/2011JAMC2521.1.
- C. Rosenzweig, W. D. Solecki, R. Blake, M. Bowman, C. Faris, V. Gornitz, R. M. Horton, K. Jacob, A. LeBlanc, R. Leichenko, M. Linkin, D. Major, M. O'Grady, L. Patrick, E. Sussman, G. Yohe, and R. Zimmerman (2011), Developing Coastal Adaptation to Climate Change in New York City Infrastructure-shed: process, approach, tools, and strategies, Climatic Change Challenges and Opportunities, *Climatic Change*, 106 (1), pp. 93-127, DOI: 10.1007/s10584-010-0002-8.
- Horton, R. M., V. Gornitz, and M. Bowman, 2010, Climate Observations and Projections, in Climate Change Adaptation in NYC: Building a Risk Management Response. C. Rosenzweig & W. Solecki, Eds. *Annals of the N.Y. Acad. of Sci.* 2010 (1185). NY, NY. 349 pp.
- Horton, R., Rosenzweig, C., Gornitz, V., Bader, D., & O'Grady, M. (2010). Climate risk information. *Annals of the New York Academy of Sciences*, 1196(1), 147-228.
- Horton, R., Herweijer, C., Rosenzweig, C., Liu, J., Gornitz, V., & Ruane, A. C. (2008). Sea level rise projections for current generation CGCMs based on the semi-empirical method. *Geophysical Research Letters*, 35(2) L02715, doi:10.1029/2007GL032486.
- Liu, J., J. A. Curry, Y. Dai, and R. M. Horton, 2007: Causes of the northern high-latitude land surface winter climate change, *Geophys. Res. Lett.*, 34, L14702, doi:10.1029/2007GL030196.
- Liu, J., Z. Zhang, R. M. Horton, C. Wang, 2007: Variability of north Pacific sea ice and east Asia-north Pacific winter climate, *Journal of Climate*, 20, 1991-2001.
- Liu, J., Z. Zhang, J. Inoue, and R. M. Horton, 2007: Evaluation of snow/ice albedo parameterizations and their impacts on sea ice simulation, *Intl. Journal of Climatology*, 27, 81-91.
- Rosenzweig, C., D. C. Major, K. Demong, C. Stanton, R. M. Horton, and M. Stults, 2007: Managing Climate Change Risks in New York City's water system: assessment and adaptation planning, *Mitigation & Adaptation Strategies for Global Change*, doi:10.1007/s11027-006-9070-5.

Additional Publications

- Horton, R., Rosenzweig, C., Solecki, W., Bader, D., & Sohl, L. (2016). Climate science for decision-making in the New York metropolitan region. *Climate in Context: Science and Society Partnering for Adaptation*, 51.
- Sarofim, M. C., Saha, S., Hawkins, M. D., Mills, D. M., Hess, J., Horton, R., ... & Juliana, A. S. (2016). *Ch. 2: Temperature-Related Death and Illness* (pp. 43-68). US Global Change Research Program, Washington, DC.
- Solecki, W., Rosenzweig, C., Solecki, S., Patrick, L., Horton, R., & Dorsch, M. (2016). NEW YORK, USA. *Cities on a Finite Planet: Towards Transformative Responses to Climate Change*, 169.

- Lentz, E. E., Stippa, S. R., Thieler, E. R., Plant, N. G., Gesch, D. B., & Horton, R. M. (2015). *Evaluating coastal landscape response to sea-level rise in the northeastern United States: approach and methods* (No. 2014-1252). US Geological Survey.
- Horton, R., G. Yohe, W. Easterling, R. Kates, M. Ruth, E. Sussman, A. Whelchel, D. Wolfe, and F. Lipschultz, 2014: Ch. 16: Northeast. *Climate Change Impacts in the United States: The Third National Climate Assessment*, J. M. Melillo, Terese (T.C.) Richmond, , and G. W. Yohe, Eds., U.S. Global Change Research Program, 16-1–16-nn.
- Horton, R. M., Bader, D. A., Rosenzweig, C., DeGaetano, A. T., & Solecki, W. (2014). *Climate Change in New York State Updating the 2011 ClimAID Climate Risk Information Supplement to NYSERDA Report 11-18 (Responding to Climate Change in New York State)*.
- Solecki, W., Rosenzweig, C., Gornitz, V., Horton, R., Major, D. C., Patrick, L., & Zimmerman, R. (2014). *Climate change and infrastructure adaptation in coastal New York City. Climate Change and the Coast: Building Resilient Communities*, 125.
- Rosenzweig, C. and R.M. Horton. The Programme on Vulnerability, Impacts and Adaptation (PROVIA) Global Research Priorities, United Nations Environmental Programme Report
- Snyder, S., Hoffstadt, R. M., Allen, L. B., Crowley, K., Bader, D. A., & Horton, R. M. (2014). *City-wide collaborations for urban climate education. Future Earth: Advancing Civic Understanding of the Anthropocene*, 203, 103-109.
- Major, D. C., Gornitz, V., Horton, R., Bader, D., Solecki, W., & Rosenzweig, C. (2013). *Climate Adaptation in New York City. Climate Adaptation and Flood Risk in Coastal Cities*, 265.
- Parris, A., P. Bromirski, V. Burkett, D. Cayan, M. Culver, J. Hall, R. Horton, K. Knuuti, R. Moss, J. Obeysekera, A. Sallenger, and J. Weiss. 2012. *Global Sea Level Rise Scenarios for the US National Climate Assessment*. NOAA Tech Memo OAR CPO-1. 37 pp.
- Horton, R., D. Bader, L. Tryhorn, A. DeGataetano, and C. Rosenzweig, 2011: *Climate risks*. In *Responding to Climate Change in New York State: The ClimAID Integrated Assessment for Effective Climate Change Adaptation: Technical Report*. C. Rosenzweig, W. Solecki, A. DeGaetano, M. O'Grady, S. Hassol, and P. Grabhorn, Eds. New York State Energy Research and Development Authority, pp. 15-48.
- Jacob, K., N. Maxemchuk, G. Deodatis, A. Morla, E. Schlossberg, I. Paung, M. Lopeman, R. Horton, D. Bader, R. Leichenko, P. Vancura, and Y. Klein, 2011: *Telecommunications*. In *Responding to Climate Change in New York State: The ClimAID Integrated Assessment for Effective Climate Change Adaptation: Technical Report*. C. Rosenzweig, W. Solecki, A. DeGaetano, M. O'Grady, S. Hassol, and P. Grabhorn, Eds. New York State Energy Research and Development Authority, pp. 363-396.
- Blake, R., A. Grimm, T. Ichinose, R. M. Horton, S. Gaffin, D. Cecil, S. Jong, K. Seto, and D. Bader, *Urban Climate: Processes, Trends and Projections*, in *The First Assessment Report of the Urban Climate Change Research Network*, C. Rosenzweig, B. Solecki, and S. Hammer eds., Cambridge University Press, 2010.
- Horton, R.M., C. Rosenzweig, V. Ramaswamy, P.L. Kinney, R. Mathur, J. Pleim, and S.T. Rao, 2010, *Integrated Climate Change Information for Resilient Adaptation Planning*, *EM Magazine*, November 2010.
- Jacob, K., R. Blake, R. M. Horton, D. Bader, and M. O'Grady, 2010, *Indicators and Monitoring*, in *Climate Change Adaptation in New York City: Building a Risk Management Response*. C. Rosenzweig & W. Solecki, Eds. *Annals of the N.Y. Academy of Sci.* 2010 (1185). NY, NY. 349 pp 35,
- Alcorn, J.M., C. E. Rosenzweig, R. M. Horton, and I.S. Higuchi, Jr., 2008, *U.S. Space*

Transportation and Climate Change: Potential Impacts of Climate Change on Access to Space, ASCE Conf. Proc. 323, 130 (2008), DOI:10.1061/40988(323)130

Rosenzweig, C., D.C. Major, R. M. Horton, and others 2008, Chapter 1 of NYC Department of Environmental Protection Assessment and Action Plan-A Report Based on the DEP Climate Change Task Force, New York, NY.

Horton, R. M., 2007: An Observational and Modeling Study of the Regional Impacts of Climate Variability. Ph.D. thesis. Columbia University.

Rosenzweig, C., R. M. Horton, D.C. Major, V. Gornitz, and K. Jacob, 2007: Appendix 2: Climate Component, 8.8.07 MTA Task Force Report. In *August 8, 2007, Storm Report*. Metropolitan Transportation Authority, pp. 73.

SELECT PRESENTATIONS (Lead Author Horton Listed Only)

Academic Presentations

“How Sea Level Rise and Changes in Storms Can Combine to Increase Coastal Flood Frequency”, American Association for the Advancement of Science Annual Meeting, Washington, D.C., February 13th, 2016.

“Observing and Communicating Sea Level Rise”, Press Conference, American Association for the Advancement of Science Annual Meeting, Washington, D.C., February 12th, 2016. (*invited*)

“Joint Hazard Assessment for Urban Decision-makers in the Northeast U.S.”, American Geophysical Union, San Francisco, CA, December 16th, 2015. (*invited*)

“The Impacts of Heat Stress on Densely-Populated Regions in the 21st Century”, Press Conference, American Geophysical Union, San Francisco, CA, December 16th, 2015. (*invited*)

“When 1+1=3; Applying a Joint Hazard Framework to Climate Risk Management”, First Extreme Weather and Climate Seminar/ SEAS Colloquium in Climate Science, Columbia University, NY, NY, November 10, 2015. (*invited*)

“Why We Need More Research on Extreme Events”, Panel Discussion at Launch of Columbia University’s Initiative on Extreme Weather and Climate, New York, NY, February 23rd 2015.

“Investigating Extreme Heat and Humidity in the Northeast United States from a Joint Hazard Perspective”, American Geophysical Union Annual Meeting, San Francisco, CA, December 19th 2014.

“Climate Change Impacts in the Northeast”, Ecological Society of America Annual Meeting, Sacramento, CA, August 8th, 2015.

“Research Agenda for Vulnerability, Impacts and Adaptation, and Steps Toward Implementation”, 20th Conference of the Parties Side Event at the Japanese Pavillion, Lima, Peru, December 4th, 2014. (*invited*)

“Urban Environmental Challenges of Climate Change”, Conference on Climate Adaptation in Turkey, Marmara University, Istanbul, Turkey, October 30th, 2014. (*invited*)

“Anticipating Sea Level Rise and Coastal Flooding in the Northeast U.S.” Rising Seas Summit, New York, NY, September 24th 2014. (*invited*)

“Biodiversity and Climate Change: Common Strategies for Sustainable and Resilient Cities”. Naturparif Congress: Nature in the City, Paris, France, June 4, 2014. (*invited*)

“Next-Generation Sea Level Rise Projections”, University of Colorado, Boulder, CO, March 5, 2014. (*invited*)

“Anticipating Sea Level Rise and Coastal Flooding in New York City”, UNAVCO Annual Science Meeting, Boulder, CO, March 4, 2014. (*invited*)

“Climate Science Update”, New York Water Environment Association 86th Annual Meeting, NY, NY, February 3, 2014. (*invited*)

“Nature as a Source of Innovation: Examples from the Urban Northeast U.S.” National Council for Science and the Environment Building Climate Solutions Conference, Washington, D.C., January 28, 2014.

“Implications of Arctic Sea Ice Loss for Regional and Global Climate”, Yale Climate and Energy Institute Seminar Series, New Haven, CT., October 28th, 2013. (*invited*)

“Global and Regional Climate Models and Water Resource Planning”, Pollution and Water Resources Seminar Series, Columbia University, NY, NY, November 21, 2013. (*invited*)

“A Changing Climate” Waterfront Conference, Stevens Institute of Technology, Hoboken, NJ, October 8, 2013. (*invited*)

“Responding to the Sustainable Development Challenge: The Urban Climate Change Research Network”, Ecocity, Nantes, France, September 26, 2013. (*invited*)

Climate Impacts and Adaptation in the Mid-Atlantic”, U.S. Coast Guard Academy Workshop, New London, CT, September 20, 2013. (*invited*)

“Science-Policy Interactions in NYC in the Wake of Hurricane Sandy”, American Geophysical Union Science Policy Conference, Washington, D.C, June 25, 2013. (*invited*)

“Science for Hurricane Sandy Recovery”, Lamont Doherty Earth Observatory Workshop on Extreme Events, Nyack, NY, May 23, 2013.

“Extreme Temperatures and their Mechanisms in NARCCAP Simulations”, American Geophysical Union Annual Meeting, San Francisco, CA, December 3, 2012.

“Climate Adaptation Experiments in the Urban Northeastern U.S.” City Hall Sustainability Symposium, Paris, France, October 24, 2012. (*invited*)

“Global Priorities for Adaptation Research”, Adaptation Futures Conference, Tucson, AZ, May 31, 2012.

“The Spatial Resolution of Climate Information for Adaptation: What Do We Really Need?”, Adaptation Futures Conference, Tucson, AZ, May 29, 2012. (*invited*)

“NASA Science in Support of Adaptation: Activities of the Climate Adaptation Science Investigator (CASI) Work Group” American Geophysical Union Annual Meeting, San Francisco, CA, December 6, 2011.

“Extreme Events and Urban Adaptation Planning” Researcher Colloquium on *Extreme Weather Phenomena under Climate Change*, Boulder, CO, June 15, 2011. (*invited*)

“Climate Change 101 for Risk Management and Decision Making”, Environment, Energy Security and Sustainability Symposium of the National Defense Industrial Organization, New Orleans, LA, May 10, 2011.

“Comparison of Regional Climate Model Simulations and Downscaling Techniques for Stakeholder-Driven Research in the Urban Northeast U.S.”, International Conference on the Coordinated Regional Downscaling Experiment (CORDEX), Trieste, Italy, March 21, 2011. (*invited*)

“Comparison of Downscaling Techniques for Stakeholder-Driven Research in the Urban Northeast U.S.”, AMS Annual Meeting, Seattle, WA, January 27, 2011.

“Climate Input Requirements for Urban Impact and Adaptation Projects”, World Climate Research Program Workshop on Regional Climate, Lille, France, June 13, 2010. (*invited*)

“Climate Hazard Assessment and Risk Management for Southeastern Hydrological Applications”, University of Florida Water Institute Symposium, Gainesville, FL, February 24, 2010. (*invited*)

“Frameworks for Regional Climate Change Impact Assessments and Adaptation Planning”, School of Marine and Atmospheric Sciences Seminar, Stony Brook, NY, May 6, 2009. (*invited*)

“Regional Climate Change Impact Assessments and Adaptation Planning”, Lamont Doherty Earth Observatory DOCP Seminar, Palisades, NY, April 24, 2009. (*invited*)

“Impacts of Climate Change on Food Production and Water Resources”, Goddard Space Flight Center, Greenbelt, MD, April 7, 2009.

“Climate Change Scenarios for the New York Metropolitan Region”, American Meteorological Society Annual Meeting, Phoenix, AZ, January 15, 2009.

“Climate Change and the NYC Region”, Coastal Cities Summit, Tampa, FL, November 20, 2008. (*invited*)

“U.S. Space Transportation and Climate Change: Potential Impacts on Access to Space”, American Society of Civil Engineers—Earth and Space Conference, Long Beach, CA, March 5, 2008.

“Climate Change and Coastal New York City”, Conference on Coastal Atmospheric & Oceanic Prediction & Processes and the Urban Environment, American Meteorological Society, San Diego, CA, September 10, 2007.

“Climate Change and the National Parks System”, George Wright Society, Minneapolis, MN, April 19, 2007. (*invited*)

Additional Presentations

“Managing Coastal Risk: Enhancing Community Resilience In A Changing Climate” Third Annual Cape Coastal Conference, Hyannis, MA, December 10, 2015. (*invited*)

“Attributing Extreme Events to Climate Change”, Plenary Talk at Water Utility Climate Alliance Annual Meeting, Savannah, GA, October 14, 2015. (*invited*)

“Responding to Climate Change in NYC” Building Energy Exchange, NY, NY, August 13, 2015. (*invited*)

“Integrating Climate Change into A Green Economy Perspective”, Ministry of Environmental Conservation and Forestry and WWF Inception Workshop, Naypyidaw, Myanmar, July 1, 2015.

“Climate Change and New York State”. Testimony at NY State Senate session on climate change, Albany, NY, May 19th, 2015. (*invited*)

“The Climate Science Context behind Transportation Sector Adaptation”, Forum on Climate Adaptation, Resiliency, and Recovery for a Sustainable Metropolitan Transit Authority, New York, NY May 13, 2015. (*invited*)

“Climate and Impact Briefing for the Energy Sector”, North American Electrical Reliability Corporation, Washington, D.C, February 5, 2015.

“Downscaled Climate Projections for New York City”. Press Conference at NY City Hall, NY, NY, February 17th 2015.

“Asia’s High Mountain Regions from A Climatic Perspective”, World Wildlife Fund Snow Leopard Project Meeting, Kathmandu, Nepal, January 31, 2015.

“What do we Know? Establishing a Common Knowledge Base around Climate”, Nathan Cummings Foundation, New York, NY, September 21, 2014. (*invited*)

“Managing Climate Risks in the Northeast”. Environmental and Energy Study Institute Briefing at U.S. Senate, Washington, D.C, July 25th 2014. (*invited*)

“Hurricane Sandy in New York City: *Lessons Learned and the Way Forward*”. American Museum of Natural History, July 1, 2014, New York, NY. (*invited*)

“Regional Impacts of Climate Change: A Summary of National Climate Assessment Findings”. White House Press Conference Accompanying the Release of the 2013 National Climate Assessment, Washington, D.C, May 6th, 2014. *(invited)*

“Urban Vulnerability Assessment for the Health and Infrastructure Sectors”, NASA National Climate Assessment Meeting, Washington, D.C, April 8, 2014.

“Climate Conversation”, Northeast Sustainability Network Leadership meeting, Ernst and Young, NY, NY, March 18, 2014. *(invited)*

“Climate Change and Sustainable Cities” Side-Event: Sustainable Urban Development Challenges and Solutions to Address Climate Change, Permanent Mission of France to the United Nations, United Nations, NY, NY, January 9, 2014. *(invited)*

“Findings of the New York City Panel on Climate Change”, City Hall, NY, NY, December 18, 2013.

“Strengths and Limitations of Climate Model-Based Approaches to Hazard Assessment”, NOAA RISA Annual Meeting, La Jolla, CA, December 5, 2013.

“Sea Level Rise Tools”, Climate Science for Climate Policy & Climate Policy for Climate Science Event, U.S. Department of State, Washington, D.C, May 14th, 2013. *(invited)*

“Prepared remarks to the Senate Democratic Steering and Outreach Committee”, U.S. Senate, Washington, D.C, April 24, 2013. *(invited)*

New York City Panel on Climate Change, Climate Information, New York State Public Services Commission Meeting, NY, NY, March 20, 2013.

“Sea Level Rise and Coastal Flooding Impacts on the Marshall Islands”, Columbia University Law School Special Event, NY, NY, February 13, 2013.

“National Climate Assessment (NCA) Northeast Region Draft Findings”, NCA Northeast Town Hall Meeting, Syracuse, NY, January 23, 2013.

“Climate Science Update in advance of the 5th IPCC Report”, NOAA-RISA Annual Meeting, San Diego, CA, January 15, 2013.

“Climate Science Update for Adaptation in New York State”, Norrie Point, NY, September 20, 2012. *(invited)*

“Climate Change and Energy Systems”, Energy Network Summit, U.S. Military Academy, West Point, NY, August 27, 2012. *(invited)*

“Advanced Methods for Participatory Scenario Planning: New York City Case Study, National Park Service, Fort Collins, CO, June 19, 2012. *(invited)*

“Research Prioritization for Least Developed Countries Policymakers”, Programme on Vulnerability, Impacts and Adaptation, Bonn, Germany, May 22, 2012.

“Climate Science for Adaptation Planning”, NASA Resilience and Adaptation Workshop, Johnson Space Center and Houston/Galveston Region, Houston, TX, March 6, 2012.

“Impact of Climate Variability and Change on the Region’s Infrastructure” After the Flood: A New York City Bar Event, NY, NY, February 27, 2012. (*invited*)

“Regional Climate Change and the Langley Research Center”, NASA Resilience and Adaptation Workshop, Hampton, VA September 27, 2011.

“Climate Projections for the Eastern U.S.”, Inland Impacts of Climate Change in the Northeast, Cornell University, Ithaca, NY, August 3, 2011.

“Cross-Sector Climate Impacts and Adaptation Strategies in the New York City Water and Infrastructure-Shed”, Climate Information for Managing Risks (CIMR) Symposium, May 26, 2011, Orlando, FL. (*invited*)

“Societal and Economic Indicators for the National Climate Assessment: Perspectives from the Northeast U.S.”, National Climate Assessment Workshop on Societal Indicators, Washington D.C, April 28, 2011. (*invited*)

“How will Global Climate Change Manifest itself at Regional And Local Scales?” and “the Regional Climate Change Assessment Process”, NASA Resilience and Adaptation Workshop for the NASA Ames Research Center and the Silicon Valley, Mountainview, CA, February 1-4, 2011.

“Information, Data, and Adaptation Tools for the Water and Wastewater Sectors” Climate Change and Water Working Group Workshop, Boulder, CO, November 9, 2010.

“Applying Regional Climate Models at Columbia University CCSR: Current Activities and Future Needs” Northeast Regional Climate Modeling Workshop, University of Massachusetts, Amherst, MA, October 8, 2010.

“Regional Climate Change and the Space Coast”, “Case Studies in Adaptation Assessment”, and “Indicators and Monitoring Systems”, NASA Resilience and Adaptation Workshop for the Space Coast, Cocoa Beach, FL, May 18-20, 2010.

“Mainstreaming Climate Change Adaptation”, Lagos State Summit on Climate Change, Lagos, Nigeria, May 5, 2010. (*invited*)

“Climate Adaptation”, NASA Master Planning Workshop, New Orleans, LA, April 6, 2010. (*invited*)

“Climate Change, Impacts, and Adaptation in Kentucky”, Regional Climate Change Forum, Lexington, KY, December 8, 2009. (*invited*)

“Climate Change Impacts and Adaptation Efforts in New York City”, Climate Change and Brazilian Megacities, FAPESP, Sao Paulo, Brazil, July 20, 2009. *(invited)*

“Climate Change and the Real Estate Industry”, Garrison Institute, Garrison, NY, May 27, 2009. *(invited)*

“New York City Panel on Climate Change: Climate Risk Information”, Connecticut Climate Change: Adaptation Subcommittee, Hartford, CT, March 13, 2009. *(invited)*

“Modeling of Climate Variability and Climate Change for Impact and Adaptation”, National Parks Service Earth to Sky III: Interpreting Climate Change, Harpers Ferry, WV, January 26, 2009. *(invited)*

“Climate Risk Frameworks, Downscaling, and Adaptation”, U.S. D.O.D. SERDP Interagency Forum on Climate Change Impacts and Adaptations, Washington, D.C, December 5, 2008. *(invited)*

“Adaptation in Central America” and “Climate Downscaling Methods for Central America”, Workshop on Climate Change in Central America, Turrialba, Costa Rica, September 4, 2008. *(invited)*

“Climate Change Adaptation in the New York Metropolitan Area”, Green Cities Workshop on “Reducing Vulnerability to Climate Change Impacts and Related Natural Disasters in Asia” hosted by UN/International Strategy for Disaster Reduction (UN/ISDR), the World Bank, the Global Facility for Disaster Reduction and Recovery (GFDRR) and the United Cities and Local Governments Asia Pacific Regional Section, Pattaya, Thailand, July 14, 2008. *(invited)*

“Application of NASA Models and Missions to Agricultural Decision Support”, Institute of Electrical and Electronics Eng./Intl. Geosci. & Remote Sens. Symp., Boston, MA, July 10, 2008.

“Climate Change and NASA Facilities: Impacts and Adaptation”, Joint Services Environmental Management Training Conference and Exposition, Denver, CO, May 8, 2008.

“From Global to Regional: Perspectives on Ecosystem Impacts of Climate Change”, Keynote address for Partnership for the Delaware Estuary—Climate Change Workshop, Philadelphia Academy of Natural Sciences, Philadelphia, PA, May 6, 2008. *(invited)*

“Caring after the Storm: The Impact of Climate Change on Children”, the United Nations, NY, NY, September 5, 2007. *(invited)*

SELECT MEDIA APPEARANCES

Television

Showtime “Years of Living Dangerously”, PBS NOVA “Inside the Megastorm”, ABC News 20/20, CNN New Day (multiple), CNN International, CNN Asia, MSNBC All-in with Chris Hayes (multiple), MSNBC Up with Steve Kornacki (multiple), MSNBC Alex Witt Show (multiple), Al Jazeera Nightly News, PBS-Thirteen Metrofocus, CBS News, WCBS-NYC Nightly News, WPIX-

NYC Nightly News, New York 1 Inside City Hall, NPR Democracy Now, RT Thom Hartmann Show, CBC Nightly News (Canada), Huffington Post Live (multiple), Planetopia (Germany), TV Arte (France), CCTV (China), Vice News

Radio

NPR Science Friday, NPR Fresh Air, NPR On Point, NPR Morning Edition, WNYC Brian Lehrer (multiple), New York State Public Radio, CBC Radio (Canada), ARD German Public Radio

Print/Internet

New York Times, Wall Street Journal, Los Angeles Times, Chicago Tribune, Christian Science Monitor, Associated Press, Newsweek, Fortune Magazine, MSNBC, Barrons, Sydney Herald (Australia), Vancouver Sun (Canada), Sueddeutsche Zeitung GmbH (Germany), ClimateWire Village Voice, AM New York, Inside Climate News, Columbia Magazine