

Robert E. Kopp

Curriculum Vitae

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Rutgers University
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Education

Ph.D. (Geobiology), California Institute of Technology, Pasadena, CA June 2007
M.S. (Geobiology), California Institute of Technology, Pasadena, CA June 2005
NSF and Harrison Brown Memorial Moore Graduate Research Fellowships
Student, Agouron Geobiology Summer Course, USC Wrigley Institute, Catalina Island, CA July 2004
S.B. (Geophysical Sciences), University of Chicago, Chicago, IL June 2002
General and Departmental Honors; Junior Phi Beta Kappa; Student Marshal

Professional Appointments

Director, Rutgers Institute of Earth, Ocean, and Atmospheric Sciences (EOAS), Rutgers University, New Brunswick, NJ 2017-
Professor of Earth & Planetary Sciences, Rutgers University, New Brunswick, NJ 2017-
Associate Director, Rutgers Energy Institute, Rutgers University, New Brunswick, NJ 2011-2017
Associate Professor of Earth & Planetary Sciences, Rutgers University, New Brunswick, NJ 2014-2017
Assistant Professor of Earth & Planetary Sciences, Rutgers University, New Brunswick, NJ 2011-2014

Rutgers Institute affiliations: EOAS, Rutgers Climate Institute, Rutgers Energy Institute, Rutgers Global Health Institute

Rutgers graduate faculty affiliations: Atmospheric Sciences, Geological Sciences, Oceanography, Statistics, Planning & Public Policy (Associate)

AAAS Science & Technology Policy Fellow, Office of Climate Change Policy & Technology, Office of Policy & International Affairs, U.S. Department of Energy, Washington, DC 2009-2011

Science, Technology & Environmental Policy Postdoctoral Fellow, Woodrow Wilson School of Public & International Affairs and Department of Geosciences, Princeton University, Princeton, NJ 2007-2009

Graduate Research Fellow, California Institute of Technology, Pasadena, CA 2002-2007

Undergraduate Research Assistant, University of Chicago, Chicago, IL 1999-2002

Teaching Experience

Rutgers University

- 01:460:203 *Building and Maintaining a Habitable Planet*, fall 2013–2016, spring 2020
- 16:218:601/16:960:691 *Statistics of the Earth System*, fall 2018 (co-taught with Prof. Michael Stein)
- 16:218:502 *Transdisciplinary Perspectives on Coastal Climate Risk and Resilience*, fall 2018 (co-taught with Dr. Carrie Ferraro)
- 33:833:640:02 *Policy Practicum: Opportunities to Incorporate the Social Cost of Carbon into New Jersey State level policies*, spring 2018 (co-taught as subject expert; course led by Prof. Andrea Hetling)
- 16:218:502 *Transdisciplinary Perspectives on Coastal Climate Risk and Resilience*, spring 2017, fall 2017 (co-taught with Prof. Rebecca Jordan and Dr. Carrie Ferraro)
- 11:090:101 *Byrne [First-Year] seminar on Manufacturing Uncertainty: The Climate Denial Machine*, fall 2016 (co-taught with Prof. Rachael Shwom)
- 16:460:571 / 16:107:571 / 34:970:663 *Climate Change Risk Analysis*, spring 2016 (co-taught with Prof. Enrique Curchitser)

- 16:460:629 / 33:833:685 *Graduate seminar on Assessing and Governing Long-Term Risks*, spring 2015 (co-taught with Prof. Rachael Shwom)
- 16:460:629 / 33:833:685 *Graduate seminar on Assessing the Economic Risks of Climate Change*, spring 2014 (co-taught with Prof. Enrique Curchitser)
- 01:566:143 *Energy and Climate Change*, fall 2015, co-instructor
- 16:460:611 *Joint Rutgers-Princeton Graduate Seminar: Geological constraints on climate sensitivity*, spring 2013 (co-taught with Prof. John Higgins)
- 01:090:252 *School of Arts & Sciences Honors Program Interdisciplinary Seminar: The Evolution of the Global Energy System—From Earth's Deep Past to Civilization's Future*, fall 2012
- 16:460:613 *Graduate seminar on Major Transitions in the Evolution of the Global Carbon Cycle*, spring 2012 (co-taught with Prof. Dennis Kent)
- 11:546:196 *School of Environmental & Biological Sciences Honors Seminar: State of the Planet*, instructor for week on energy issues, spring 2012

California Institute of Technology

- *Ge 11b: Earth and Biosphere* (undergraduate) and *Ge 104: Introduction to Geobiology* (graduate), teaching assistant for Prof. Joseph Kirschvink, winter 2005 and winter 2006
- Geological & Planetary Sciences division field trip to Yellowstone National Park and surrounding areas, co-coordinator, summer 2005
- *Ge 124: Paleomagnetism and Magnetostratigraphy*, teaching assistant for Prof. Joseph Kirschvink, spring 2005
- *Ge 136: Regional Field Geology of the Southwestern U.S.*, coordinated Colorado Plateau weekend field trip classes for Prof. Joseph Kirschvink, spring 2005
- Geological & Planetary Sciences division field trip to Western Australia, co-coordinator, summer 2004
- *Ge 136: Regional Field Geology of the Southwestern U.S.*, coordinated southwestern Utah weekend field trip classes for Prof. Joseph Kirschvink, spring 2004
- *ACM 118: Methods in Applied Statistics and Data Analysis*, teaching assistant for Prof. Tapio Schneider, fall 2003

Related Consulting and Advisory Experience

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| Chair, Science and Technical Advisory Panel on Sea-Level Rise and Coastal Storm Risk, Rutgers University on behalf of the New Jersey Department of Environmental Protection | 2019 |
| Member, Panel for Climate Change Position Statement Revision, American Geophysical Union | 2019 |
| Member, Greater Boston Research Advisory Group | 2019–2020 |
| Advisory Committee Member, “How We Respond,” American Association for the Advancement of Science | 2019 |
| Sea-Level Rise Expert Group Member, Maryland Climate Change Commission | 2018 |
| Working Group on Climate Change Impacts Member, Port Authority of New York and New Jersey | 2018 |
| Advisory and Review Board Member, Climate Tipping Points Study, PESETA III Project, European Commission Joint Research Centre | 2018 |
| Sea-Level Rise Expert Group Member, New York City Panel on Climate Change | 2017 |
| Sea-Level Rise Expert Panel Author, California Ocean Protection Council | 2017 |

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| Lead Author, U.S. Global Change Research Program Climate Science Special Report (Fourth National Climate Assessment, Volume 1) | 2016–2017 |
| Committee Member, National Academies Project on Assessing Approaches to Updating the Social Cost of Carbon | 2015–2017 |
| Sea-Level Rise Expert Committee Member, Fourth California Climate Change Vulnerability and Adaptation Assessment | 2016 |
| Working Group Member, Sea-Level Rise Working Group, Boston Research Advisory Group | 2015–2016 |
| Chair, Science and Technical Advisory Panel on Sea-Level Rise and Coastal Storm Risk, New Jersey Climate Adaptation Alliance | 2015–2016 |
| External Reviewer, New Hampshire Coastal Risks and Hazards Commission Scientific Advisory Panel | 2014 |
| External Reviewer, New York City Panel on Climate Change | 2014 |
| Lead Scientist, <i>American Climate Prospectus: Economic Risks in the United States</i> (Independent risk assessment for the Risky Business Project) | 2013–2014 |
| Sea-Level Rise Expert Group Member, Maryland Climate Change Commission | 2013 |
| Advisory and Review Board Member, Climate Tipping Points Study, PESETA II Project, European Commission Joint Research Centre | 2012 |
| Woodrow Wilson School of Public & International Affairs Workshop, consulting for Office of Air and Radiation, Environmental Protection Agency Report co-author, <i>Black Carbon: A Review and Policy Recommendations</i> Lead author of chapter on “The role of black carbon in climate change” | 2008–2009 |
| Scientific Assessment Panel advising the Delta Committee of the Dutch Cabinet Report co-author, <i>Exploring high-end climate change scenarios for flood protection of the Netherlands</i> ; Lead author of section on “Paleo-climatological perspective” | 2008 |
| Academic Service | |
| Co-Chair, President’s Task Force on Carbon Neutrality and Climate Resilience, Rutgers University | 2019– |
| Juror, “Designing a Green New Deal” Landscape Architecture/Planning Studio, Weitzman School of Design, University of Pennsylvania | 2019 |
| Member, Board on Atmospheric Sciences and Climate, National Academies of Sciences, Engineering, and Medicine | 2017– |
| Intergovernmental Panel on Climate Change Sixth Assessment Cycle Lead Author, Working Group 1, Sixth Assessment Report Chapter 9, “Ocean, Cryosphere, and Sea Level Change” | 2018–2020 |
| Contributing Author, Special Report on Oceans and Cryosphere Chapter 4, “Sea Level Rise and Implications” | 2017–2018 |
| Sixth Assessment Report Scoping Meeting Participant | 2017 |
| AGU Ocean Sciences Meeting 2018 Program Committee | 2017 |

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| Co-Director, Coastal Climate Risk & Resilience (C2R2) Initiative, Rutgers University | 2016- |
| Associate Deputy Editor, <i>Climatic Change</i> | 2016- |
| Advisory Group Member, AGU Sharing Science Program | 2016- |
| Editorial Board Member, <i>Current Climate Change Reports</i> | 2016- |
| Rutgers University Committees | |
| Marine Social Science and Policy Faculty Search Committee | 2017-2018 |
| Bloustein School of Planning & Public Policy Dean Search Committee | 2016-2018 |
| Graduate Program on Atmospheric Sciences Nominations Committee | 2014- |
| Institute of Earth, Ocean and Atmospheric Sciences Faculty Advisory Committee | 2014-2016 |
| Sustainability Committee | 2014-2016 |
| Henry Rutgers Earth, Ocean, and Atmospheric Sciences Professorship Search Committee | 2014-2016 |
| Rutgers Climate Institute Internal Advisory Board | 2013- |
| Strategic Planning Committee on "Understanding and Creating a Sustainable World" | 2013 |
| Department of Earth & Planetary Sciences Faculty Search Committee | 2013-2014 |
| Department of Earth & Planetary Sciences Faculty Search Committee | 2011-2012 |
| Rutgers Climate & Society Initiative Internal Advisory Board | 2012-2013 |
| Discussion Leader, Department of Energy Integrated Modeling Workshop | 2014 |
| AGU <i>Eos</i> Editorial Advisory Board | 2013- |
| Co-Convener, DIMACS Workshop on "Geological data fusion: Tackling the statistical challenges of interpreting past environmental change," Piscataway, NJ | 2013 |
| Intergovernmental Panel on Climate Change Fifth Assessment Report | |
| Contributing Author | 2012-2014 |
| Working Group 1, Chapter 5, "Information from paleoclimate archives" | |
| Working Group 2, Chapter 10, "Key economic sectors and services" | |
| Working Group 2, Chapter 19, "Emergent risks and key vulnerabilities" | |
| Expert Reviewer, Working Group 1 and Working Group 2 | 2011-2013 |
| Department of Energy Adviser to U.S. Delegation to 31st Plenary | 2009 |
| Organizer, Rutgers Energy Institute Energy Policy Seminar Series | 2012- |
| Session Co-Chair, "Geomicrobiology and the magnetic signature of biogenic iron minerals" | 2012 |
| Ninth Santa Fe Conference on Rock Magnetism, Santa Fe, NM | |
| AAAS Science & Technology Policy Fellowship Application Reader | 2011-2015 |
| Co-Organizer, DOE/EPA Workshops on "Improving the Assessment and Valuation of Climate Change Impacts for Policy and Regulatory Analysis," Washington, DC | 2010-2011 |
| Session Convener, "Incorporating Climate Change Impacts into Policy Analysis" | 2010 |
| American Geophysical Union Fall Meeting, San Francisco, CA | |
| Organizer, Princeton Environmental Institute Energy Group Seminar Series | 2008-2009 |
| Organizer, Princeton University Environmental Geology and Geochemistry Seminar Series | 2008 |
| Session Convener, "Biogeomagnetism: Processes and Products" | 2005 |
| American Geophysical Union Fall Meeting, San Francisco, CA | |

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| Secretary, Graduate Student Council , California Institute of Technology, Pasadena, CA | 2005-2006 |
| Committee Member, Caltech Y Social Activism Speakers Series , Pasadena, CA | 2004-2006 |

Journal Referee: *AMBIO*; *Climate of the Past*; *Climate Research*; *Climatic Change*; *Earth and Planetary Science Letters*; *Earth System Dynamics*; *Earth's Future*; *Ecological Economics*; *Energy Policy*; *Environmental Microbiology*; *Environmental Research Letters*; *European Biophysics Journal*; *Geobiology*; *Geochemistry*; *Geophysics*; *Geosystems (G3)*; *Geology*; *Geophysical Journal International*; *Geophysical Research Letters*; *Geoscientific Model Development*; *Global Environmental Change*; *Global and Planetary Change*; *Journal of Applied Physics*; *Journal of Climate*; *Journal of Geophysical Research: Biogeosciences*; *Journal of Geophysical Research: Oceans*; *Journal of Marine Science and Engineering*; *Journal of the Royal Society: Interface*; *Landscape Ecology*; *Natural Hazards*; *Nature*; *Nature Climate Change*; *Nature Communications*; *Nature Geoscience*; *Ocean Science*; *Palaeogeography, Palaeoclimatology, Palaeoecology (Paleo3)*; *Paleoceanography*; *PLOS One*; *Proceedings of the National Academy of Sciences*; *Progress in Physical Geography*; *Quaternary Science Reviews*; *Reviews of Geophysics*; *Science*; *Science Advances*; *Science of the Total Environment*; *Weather, Climate and Society*

Grant Referee: NASA Postdoctoral Program; National Science Foundation (Antarctic Glaciology; Antarctic Integrated System Science; Decision, Risk, and Management Sciences; Geophysics; Marine Geology and Geophysics; Paleoclimate; Paleo Perspectives on Climate Change); Mississippi-Alabama Sea Grant Consortium; Netherlands Organization for Scientific Research (NWO); Sigma Delta Epsilon/Graduate Women in Science; South African National Research Foundation; Swiss National Science Foundation; U.K. Natural Environment Research Council; U.S. Department of Energy

Member: American Association for the Advancement of Science, American Geophysical Union, Geological Society of America, Society for Risk Analysis

Honors and Awards

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| American Geophysical Union (AGU) Fellow | 2017 |
| American Geophysical Union (AGU) James B. Macelwane Medal | 2017 |
| Rutgers–New Brunswick Chancellor's Scholar | 2015–2020 |
| Leopold Leadership Fellow | 2015–2016 |
| International Union for Quaternary Research (INQUA) Sir Nicholas Shackleton Medal | 2015 |
| AGU Editor's Citation for Excellence in Refereeing, <i>Earth's Future</i> | 2014 |
| William Mitchell College of Law Expert Witness Training Academy | 2014 |
| American Geophysical Union (AGU) William Gilbert Medal | 2012 |
| Kavli Fellow | 2012 |
| AGU Editor's Citation for Excellence in Refereeing, <i>Geophysical Research Letters</i> | 2011 |
| Award for Special Service, U.S. Department of Energy | 2010 |
| AAAS Science & Technology Policy Fellow | 2009-2011 |
| White House Fellows Program Regional Semi-Finalist | 2009 |
| Harrison Brown Memorial Moore Graduate Research Fellow, California Institute of Technology | 2002-2006 |
| National Science Foundation Graduate Research Fellow | 2002-2005 |
| Prize for Excellence, Sigma Xi (University of Chicago chapter) | 2002 |
| Student Marshal, University of Chicago Class of 2002 | 2001-2002 |
| Junior Phi Beta Kappa | 2001 |

Publications

Working papers and manuscripts in review

1. Behar, D., R. Kopp, R. DeConto, C. Weaver, K. White, K. May, and R. Bindshadler (2017). "Planning for Sea Level Rise: An AGU Talk in the Form of a Co-Production Experiment Exploring Recent Science". <https://www.wucaonline.org/assets/pdf/pubs-agu-consensus-statement.pdf>.
2. Desmet, K., R. Kopp, S. A. Kulp, D. K. Nagy, M. Oppenheimer, E. Rossi-Hansberg, and B. H. Strauss (2018). *Evaluating the economic cost of coastal flooding*. Working Paper 24918. National Bureau of Economic Research. <http://www.nber.org/papers/w24918>.

3. Rasmussen, D. J., M. K. Buchanan, R. E. Kopp, and M. Oppenheimer (2019). *A flood damage allowance framework for coastal protection with deep uncertainty in sea-level rise*. arXiv: 1908.02844 [physics.ao-ph].
4. Vicedo-Cabrera, A., D. S. Goldfarb, R. E. Kopp, L. Song, and G. E. Tasian (2019). Sex Differences in the Temperature-Dependence of Kidney Stone Presentations: a Population-Based Aggregated Case-Crossover Study. *Urolithiasis* **in press**. doi: 10.1007/s00240-019-01129-x.
5. Gilford, D. M., E. L. Ashe, R. E. Kopp, R. M. DeConto, D. Pollard, and A. Rovere (in review). Can the Last Interglacial Constrain Projections of Future Antarctic Ice Mass Loss and Sea-level Rise? *Journal of Geophysical Research-Earth Surface*. doi: 10.1002/essoar.10501078.1.
6. Gornitz, V., M. Oppenheimer, R. Kopp, R. Horton, D. Bader, P. Orton, and C. Rosenzweig (in review). Enhancing New York City's Resilience to Sea Level Rise and Increased Coastal Flooding. *Urban Climate*.
7. Yuan, J., M. L. Stein, and R. E. Kopp (in review). The evolving distribution of relative humidity conditional upon daily maximum temperature in a warming climate. *Journal of Geophysical Research*. doi: 10.1002/essoar.10501236.1.

Journal articles

1. Kopp, R. E. and M. Humayun (2003). Kinetic model of carbonate dissolution in Martian meteorite ALH84001. *Geochimica et Cosmochimica Acta* **67**(17), 3247–3256. doi: 10.1016/S0016-7037(02)01114-6.
2. Weiss, B. P., S. S. Kim, J. L. Kirschvink, R. E. Kopp, M. Sankaran, A. Kobayashi, and A. Komeili (2004a). Magnetic tests for magnetosome chains in Martian meteorite ALH84001. *Proceedings of the National Academy of Sciences* **101**(22), 8281–8284. doi: 10.1073/pnas.0402292101.
3. Weiss, B. P., S. S. Kim, J. L. Kirschvink, R. E. Kopp, M. Sankaran, A. Kobayashi, and A. Komeili (2004b). Ferromagnetic resonance and low temperature magnetic tests for biogenic magnetite. *Earth and Planetary Science Letters* **224**, 73–89. doi: 10.1016/j.epsl.2004.04.024.
4. Kopp, R. E., J. L. Kirschvink, I. A. Hilburn, and C. Z. Nash (2005). The Paleoproterozoic snowball Earth: A climate disaster triggered by the evolution of oxygenic photosynthesis. *Proceedings of the National Academy of Sciences* **102**(32), 11131–11136. doi: 10.1073/pnas.0504878102.
5. Kobayashi, A., J. L. Kirschvink, C. Z. Nash, R. E. Kopp, D. A. Sauer, L. E. Bertani, W. F. Voorhout, and T. Taguchi (2006). Experimental observation of magnetosome chain collapse in magnetotactic bacteria: sedimentological, paleomagnetic, and evolutionary implications. *Earth And Planetary Science Letters* **245**, 538–550. doi: 10.1016/j.epsl.2006.03.041.
6. Kopp, R. E., C. Z. Nash, A. Kobayashi, B. P. Weiss, D. A. Bazylinski, and J. L. Kirschvink (2006). Ferromagnetic resonance spectroscopy for assessment of magnetic anisotropy and magnetostatic interactions: A case study of mutant magnetotactic bacteria. *Journal of Geophysical Research* **111**, B12S25. doi: 10.1029/2006JB004529.
7. Kopp, R. E., B. P. Weiss, A. C. Maloof, H. Vali, C. Z. Nash, and J. L. Kirschvink (2006). Chains, clumps, and strings: Magnetofossil taphonomy with ferromagnetic resonance spectroscopy. *Earth and Planetary Science Letters* **247**(1–2), 10–25. doi: 10.1016/j.epsl.2006.05.001.
8. Liang, M.-C., H. Hartman, R. E. Kopp, J. L. Kirschvink, and Y. L. Yung (2006). Production of hydrogen peroxide in the atmosphere of a Snowball Earth and the origin of oxygenic photosynthesis. *Proceedings of the National Academy of Sciences* **103**(50), 18896–18899. doi: 10.1073/pnas.0608839103.
9. Suzuki, Y., R. E. Kopp, T. Kogure, A. Suga, K. Takai, S. Tsuchida, N. Ozaki, K. Endo, J. Hashimoto, and Y. Kato (2006). Sclerite formation in the hydrothermal-vent “scaly-foot” gastropod—possible control of iron sulfide biomineralization by the animal. *Earth and Planetary Science Letters* **242**(1), 39–50. doi: 10.1016/j.epsl.2005.11.029.
10. Kopp, R. E., T. D. Raub, D. Schumann, H. Vali, A. V. Smirnov, and J. L. Kirschvink (2007). Magnetofossil spike during the Paleocene-Eocene thermal maximum: Ferromagnetic resonance, rock magnetic, and electron microscopy evidence from Ancora, New Jersey, United States. *Paleoceanography* **22**, PA4103. doi: 10.1029/2007PA001473.
11. Maloof, A. C., R. E. Kopp, J. P. Grotzinger, D. A. Fike, T. Bosak, H. Vali, P. M. Poussart, B. P. Weiss, and J. L. Kirschvink (2007). Sedimentary iron cycling and the origin and preservation of magnetization in platform carbonate muds, Andros Island, Bahamas. *Earth and Planetary Science Letters* **259**(3–4), 581–598. doi: 10.1016/j.epsl.2007.05.021.

12. Kirschvink, J. L., R. E. Kopp, T. D. Raub, C. T. Baumgartner, and J. W. Holt (2008). Rapid, precise, and high-sensitivity acquisition of paleomagnetic and rock-magnetic data: Development of a low-noise automatic sample changing system for superconducting rock magnetometers. *Geochemistry Geophysics Geosystems* **9**(5), Q05Y01. doi: 10.1029/2007GC001856.
13. Kirschvink, J. L. and R. E. Kopp (2008). Palaeoproterozoic ice houses and the evolution of oxygen-mediating enzymes: the case for a late origin of photosystem II. *Philosophical Transactions of the Royal Society B: Biological Sciences* **363**(1504), 2755–2765. doi: 10.1098/rstb.2008.0024.
14. Kopp, R. E. and J. L. Kirschvink (2008). The identification and biogeochemical interpretation of fossil magnetotactic bacteria. *Earth-Science Reviews* **86**(1-4), 42–61. doi: 10.1016/j.earscirev.2007.08.001.
15. Schumann, D., T. D. Raub, R. E. Kopp, J.-L. Guerquin-Kern, T.-D. Wu, I. Rouiller, A. V. Smirnov, S. K. Sears, U. Lücken, S. M. Tikoo, R. Hesse, J. L. Kirschvink, and H. Vali (2008). Gigantism in unique biogenic magnetite at the Paleocene–Eocene Thermal Maximum. *Proceedings of the National Academy of Sciences* **105**(46), 17648–17653. doi: doi:10.1073/pnas.0803634105.
16. Kopp, R., D. Schumann, T. Raub, D. Powars, L. Godfrey, N. Swanson-Hysell, A. Maloof, and H. Vali (2009). An Appalachian Amazon? Magnetofossil evidence for the development of a tropical river-like system in the mid-Atlantic United States during the Paleocene-Eocene thermal maximum. *Paleoceanography* **24**(4), PA4211. doi: 10.1029/2009PA001783.
17. Kopp, R. E., F. J. Simons, J. X. Mitrovica, A. C. Maloof, and M. Oppenheimer (2009). Probabilistic assessment of sea level during the last interglacial stage. *Nature* **462**(7275), 863–867. doi: 10.1038/nature08686.
18. Morrow, D. R., R. E. Kopp, and M. Oppenheimer (2009). Toward ethical norms and institutions for climate engineering research. *Environmental Research Letters* **4**, 045106. doi: 10.1088/1748-9326/4/4/045106.
19. Kopp, R. E. and D. L. Mauzerall (2010). Assessing the climatic benefits of black carbon mitigation. *Proceedings of the National Academy of Sciences* **107**(26), 11703–11708. doi: 10.1073/pnas.0909605107.
20. Kopp, R. E., J. X. Mitrovica, S. M. Griffies, J. Yin, C. C. Hay, and R. J. Stouffer (2010). The impact of Greenland melt on local sea levels: a partially coupled analysis of dynamic and static equilibrium effects in idealized water-hosing experiments. *Climatic Change* **103**, 619–625. doi: 10.1007/s10584-010-9935-1.
21. Katsman, C., A. Sterl, J. Beersma, H. van den Brink, J. Church, W. Hazeleger, R. Kopp, D. Kroon, J. Kwadijk, R. Lammersen, J. Lowe, M. Oppenheimer, H. Plag, J. Ridley, H. von Storch, D. Vaughan, P. Vellinga, L. Vermeersen, R. van de Wal, and R. Weisse (2011). Exploring high-end scenarios for local sea level rise to develop flood protection strategies for a low-lying delta—the Netherlands as an example. *Climatic Change* **109**(3), 617–645. doi: 10.1007/s10584-011-0037-5.
22. Kousky, C., R. E. Kopp, and R. M. Cooke (2011). Risk premia and the social cost of carbon: A review. *Economics* **5**, 2011–21. doi: 10.5018/economics-ejournal.ja.2011-21.
23. Eom, J., K. Calvin, L. Clarke, J. Edmonds, S. Kim, R. Kopp, P. Kyle, P. Luckow, R. Moss, P. Patel, and M. Wise (2012). Exploring the future role of Asia utilizing a Scenario Matrix Architecture and Shared Socio-economic Pathways. *Energy Economics* **34**, S325–S338. doi: 10.1016/j.eneco.2012.03.012.
24. Kopp, R. E. (2012). Palaeoclimate: Tahitian record suggests Antarctic collapse. *Nature* **483**(7391), 549–550. doi: 10.1038/483549a.
25. Kopp, R. E., A. Golub, N. O. Keohane, and C. Onda (2012). The Influence of the Specification of Climate Change Damages on the Social Cost of Carbon. *Economics* **6**, 2012–13. doi: 10.5018/economics-ejournal.ja.2012-13.
26. Kopp, R. E. and B. K. Mignone (2012). The U.S. Government's Social Cost of Carbon Estimates after Their First Two Years: Pathways for Improvement. *Economics* **6**, 2012–15. doi: 10.5018/economics-ejournal.ja.2012-15.
27. Hay, C. C., E. Morrow, R. E. Kopp, and J. X. Mitrovica (2013). Estimating the sources of global sea level rise with data assimilation techniques. *Proceedings of the National Academy of Sciences* **110**, 3692–3699. doi: 10.1073/pnas.1117683109.
28. Kodama, K., R. Moeller, D. Bazylinski, R. Kopp, and A. Chen (2013). The mineral magnetic record of magnetofossils in recent lake sediments of Lake Ely, PA. *Global and Planetary Change* **110C**, 350–363. doi: 10.1016/j.gloplacha.2013.03.012.

29. Kopp, R. E. (2013). Does the mid-Atlantic United States sea level acceleration hot spot reflect ocean dynamic variability? *Geophysical Research Letters* **40**, 3981–3985. doi: 10.1002/grl.50781.
30. Kopp, R. E. and B. K. Mignone (2013). Circumspection, reciprocity, and optimal carbon prices. *Climatic Change* **120**(4), 831–843. doi: 10.1007/s10584-013-0858-5.
31. Kopp, R. E., F. J. Simons, J. X. Mitrovica, A. C. Maloof, and M. Oppenheimer (2013). A probabilistic assessment of sea level variations within the last interglacial stage. *Geophysical Journal International* **193**(2), 711–716. doi: 10.1093/gji/ggt029.
32. Marten, A. L., R. E. Kopp, K. C. Shouse, C. W. Griffiths, E. L. Hodson, E. Kopits, B. K. Mignone, C. Moore, S. C. Newbold, S. Waldhoff, and A. Wolverton (2013). Improving the assessment and valuation of climate change impacts for policy and regulatory analysis. *Climatic Change* **117**, 433–438. doi: 10.1007/s10584-012-0608-0.
33. Miller, K. G., R. E. Kopp, B. P. Horton, J. V. Browning, and A. C. Kemp (2013). A geological perspective on sea-level rise and its impacts along the U.S. mid-Atlantic coast. *Earth's Future* **1**, 3–18. doi: 10.1002/2013EF000135.
34. Siddall, M., R. C. A. Hindmarsh, W. G. Thompson, A. Dutton, R. E. Kopp, and E. J. Stone (2013). Sea level variations during the last interglacial. *PAGES news* **21**(1), 36–37.
35. Chen, A., V. Berounsky, M. Chan, M. Blackford, C. Cady, B. Moskowicz, P. Kraal, E. Lima, R. Kopp, G. Lumpkin, B. Weiss, P. Hesse, and N. Vella (2014). Magnetic properties of uncultivated magnetotactic bacteria and their contribution to a stratified estuary iron cycle. *Nature Communications* **5**, 4797. doi: 10.1038/ncomms5797.
36. Hay, C., J. X. Mitrovica, N. Gomez, J. R. Creveling, J. Austermann, and R. E. Kopp (2014). The sea-level fingerprints of ice-sheet collapse during interglacial periods. *Quaternary Science Reviews* **87**, 60–69. doi: 10.1016/j.quascirev.2013.12.022.
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2. Kirschvink, J. L. and R. E. Kopp (ghostwriter) (2006). Red Earth, White Earth, Green Earth, Black Earth. *Engineering & Science* 4, 10–20.
3. Kopp, R. and B. Strauss (2012). Rising seas a real threat to New Jersey. *Newark Star-Ledger* (July 10). <http://tinyurl.com/ckmmjl9>.
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Presentations

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(Invited talks indicated by an *)

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2. R. E. Kopp, C. Z. Nash, and J. L. Kirschvink (2004). Magnetosome batteries, magnetofossils, and the evolution of the planetary redox state. Southern California Geobiology Symposium, Pasadena, CA, February 2004
3. * R. E. Kopp, B. P. Weiss, S. S. Kim, and J. L. Kirschvink (2004). Ferromagnetic resonance spectroscopy in the hunt for magnetofossils. Institute for Rock Magnetism Santa Fe 6, Santa Fe, NM, June 2004.
4. R. E. Kopp, C. Z. Nash, J. L. Kirschvink, and J. R. Leadbetter (2004). A possible magnetite/maghemite battery in the magnetotactic bacteria. American Geophysical Union Fall Meeting, San Francisco, CA, Eos Trans. AGU 85(47), Fall Meet. Suppl., Abstract GP34A-06, December 2004.
5. R. E. Kopp, J. L. Kirschvink, and B. P. Weiss (2005). Magnetofossils as a novel tracer of ancient microbial communities and environments. Southern California Geobiology Symposium, Los Angeles, CA, April 2005
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7. A. C. Maloof, J. P. Grotzinger, R. E. Kopp, B. P. Weiss, H. Vali, and J. L. Kirschvink (2005). On the origin of magnetization in platform carbonate muds. American Geophysical Union Fall Meeting, San Francisco, CA, Eos Trans. AGU 86(52), Fall Meet. Suppl., Abstract B24A-07, December 2005
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27. R. E. Kopp, F. J. Simons, Jerry X. Mitrovica, A. C. Maloof, and M. Oppenheimer (2009). Local and global sea level during the Last Interglacial: A probabilistic assessment. AGU Chapman Conference on Abrupt Climate Change, Columbus, OH, June 2009.
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29. D. S. Powars, L. E. Edwards, R. E. Kopp, J. Self-Trail, and A. Schultz (2009). The PETM in the mid-Atlantic Coastal Plain: A widespread record of unique climate signatures in shallow-shelf Marlboro Clay. American Geophysical Union Fall Meeting, San Francisco, CA, December 2009.
30. T. D. Raub and R. E. Kopp (2009). Global paleogeographic uncertainty at the PETM. American Geophysical Union Fall Meeting, San Francisco, CA, December 2009.
31. * R. E. Kopp (2010). Probabilistic assessment of local and global sea level during the Last Interglacial stage. Harvard ClimaTea seminar, Cambridge, MA, March 2010.
32. * R. E. Kopp (2010). New approaches in domestic and international climate policy. Princeton Environmental Institute Energy Group seminar, Princeton, NJ, April 2010.
33. * R. E. Kopp (2010). Department of Energy Office of Policy & International Affairs and Climate Change Technology Program impacts activities and needs. Energy Modeling Forum Workshop on Climate Change Impacts and Integrated Assessment, Snowmass, CO, July 2010.

34. * R. E. Kopp, F. J. Simons, J. X. Mitrovica, A. C. Maloof and M. Oppenheimer (2010). Last Interglacial Sea Level: A Bayesian approach to integrating geological data and physical models. PALSEA Workshop, Bristol, UK, September 2010.
35. * R. E. Kopp, J. X. Mitrovica, S. M. Griffies, J. Yin, C. C. Hay and R. J. Stouffer (2010). Dynamic and static equilibrium sea level effects of Greenland Ice Sheet melt: An assessment of partially-coupled idealized water hosing experiments. American Geophysical Union Fall Meeting, San Francisco, CA, December 2010.
36. * R. E. Kopp (2011). Incorporating Deep Time and the Long Now into policy and regulatory analysis: Lessons from a social cost of carbon assessment. University of Chicago Department of Geophysical Sciences, Chicago, IL, May 2011.
37. * R. E. Kopp (2011). Macroeconomic rebound, Jevons? paradox, and economic development. Carnegie Mellon University Center for Environmental Decision Making Workshop on "Energy Efficiency and the Rebound Effect," Washington, DC, June 2011.
38. * R. E. Kopp (2011). Searching for the geographic fingerprints of past and future sea level change amid uncertainty. PALSEA Workshop, Cambridge, MA, August 2011.
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43. * R. E. Kopp (2012). Interpreting the noisy geological record of ancient sea level changes. Rutgers Statistics Department Colloquium, Piscataway, NJ, April 2012.
44. J. Liu, N. Gomez, G.A. Milne, J.X. Mitrovica, R. E. Kopp, and P.U. Clark (2012). Re-constraining the source distribution of Meltwater Pulse 1A using near-field and far-field sea-level data. PALSEA Workshop, Madison, WI, June 2012.
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48. * R. E. Kopp (2012). Interpreting the noisy geological record of ancient sea level changes. Caltech Yuk Lunch Seminar, Pasadena, CA, October 2012.
49. * R. E. Kopp (2012). The role of geoengineering among climate solutions. US Kavli Frontiers of Science Symposium, Irvine, CA, November 2012. <http://vimeo.com/58042026>.
50. C. L. Hlavaty, R. E. Kopp, K. G. Miller, J. V. Browning, Y. F. Reinfelder, G. S. Mountain, and B. Slater (2012). Carbon sequestration beneath the New Jersey continental shelf: an assessment of the geological and socio-political factors. Geological Society of America Annual Meeting, Charlotte, NC, November 2012.
51. S. Hsiang, R. E. Kopp and M. Oppenheimer, and R. E. Kopp (2012). Modeling the global human impact of climate change: building a pipeline from empirical research to global management. American Geophysical Union Fall Meeting, San Francisco, CA, December 2012.
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53. C. M. Little, Y. Liu, M. Oppenheimer, and R. E. Kopp (2012). A probabilistic assessment of the Antarctic contribution to 21st century sea level change on United States coastlines. American Geophysical Union Fall Meeting, San Francisco, CA, December 2012.
54. C. Lombardi, K. G. Miller, J. D. Wright, J. V. Browning, and R. E. Kopp (2012). Lithostratigraphy and clay mineralogy of PETM sediments at new Wilson Lake, NJ, corehole. Geological Society of America Annual Meeting, Charlotte, NC, November 2012.
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56. * R. E. Kopp (2012). Climate change risk in benefit-cost analysis: Key sensitivities for the social cost of carbon and optimal emissions trajectories. Society for Risk Analysis Annual Meeting, San Francisco, CA, December 2012.
57. * R. E. Kopp (2013). Interpreting the noisy historical and geological records of sea level change: What can the past tell us about the future? Carnegie Mellon University Climate and Energy Decision Making Seminar, Pittsburgh, PA, January 2013.
58. * R. E. Kopp (2013). Bayesian inference on sea level and ice volume history during past interglacials. DIMACS Workshop on "Geological data fusion: Tackling the statistical challenges of interpreting past environmental change," Piscataway, NJ, January 2013.
59. * R. E. Kopp (2013). Interpreting the noisy geological record of ancient sea level changes: What can the Quaternary tell us about ice sheet stability? CLIVAR WGOMD - SOP Workshop on Sea Level Rise, Ocean/Ice Shelf Interactions and Ice Sheets, Hobart, Australia, February 2013.
60. * R. E. Kopp (2013). Interpreting the noisy geological record of ancient sea level changes: What can the Quaternary tell us about ice sheet stability? Penn State Geosciences Colloquium/Frontiers of Cyberscience Lecture, State College, PA, April 2013.
61. * R. E. Kopp (2013). Interpreting the noisy geological record of ancient sea level changes: What can the Quaternary tell us about ice sheet stability? Lamont-Doherty Biology & Paleo Environment Seminar, Palisades, NY, April 2013.
62. * R. E. Kopp (2013). Interpreting the noisy geological record of ancient sea level changes: What can the Quaternary tell us about ice sheet stability? NASA Goddard Institute for Space Studies Seminar, New York, NY, May 2013.
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65. * R. E. Kopp (2013). Regionalizing sea-level rise projections for urban planning. DIMACS/CCIADA Workshop on Urban Planning for Climate Events, Piscataway, NJ, September 2013. <http://dimacs.rutgers.edu/Workshops/Urban/Slides/SeaLevelTalk.pdf>
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67. R. E. Kopp, C. C. Hay, E. Morrow, J. X. Mitrovica, and V. Pavlovic (2013). Bayesian estimate of rates and sources of past sea-level change. PALSEA2 Workshop, Rome, Italy, October 2013.
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69. * R. E. Kopp (2013). Frontiers in the assessment of climate change damages for benefit-cost analysis. Institute for Policy Integrity Fifth Annual Cost-Benefit Analysis and Issue Advocacy Workshop, New York, NY, October 2013. <https://www.youtube.com/watch?v=SA13Ug3tkvk>

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71. A. P. Chen, V. M. Berounsky, M. K. Chan, B. M. Moskowitz, E. A. Lima, R. E. Kopp, C. Cady, B. P. Weiss and P. Hesse (2013). Magnetofossils as tracers of oxygenation change: a case study from the stratified Pettaquamscutt River Estuary. American Geophysical Union Fall Meeting, San Francisco, CA, December 2013.
72. B. P. Horton, S. E. Engelhart, A. C. Kopp, D. F. Hill and R. E. Kopp (2013). Holocene relative sea-level changes from the U.S. Atlantic coast. American Geophysical Union Fall Meeting, San Francisco, CA, December 2013.
73. A. C. Kemp, R. E. Kopp, B. P. Horton and N. Cahill (2013). Spatial and temporal variability of late Holocene sea-level changes in the North Atlantic. American Geophysical Union Fall Meeting, San Francisco, CA, December 2013.
74. * R. E. Kopp, C. C. Hay and J. X. Mitrovica (2013). Quantifying uncertainty in the level, rates and sources of interglacial sea-level change. American Geophysical Union Fall Meeting, San Francisco, CA, December 2013.
75. * R. E. Kopp, C. C. Hay, E. Morrow, J. X. Mitrovica, B. P. Horton, and A. C. Kemp (2013). Sea-level variability in tide-gauge and geological records: An empirical Bayesian analysis. American Geophysical Union Fall Meeting, San Francisco, CA, December 2013.
76. C. M. Little, M. Oppenheimer, R. M. Horton, J. Yin and R. E. Kopp (2013). Characterizing uncertainty in CMIP5 projections of local sea level change. American Geophysical Union Fall Meeting, San Francisco, CA, December 2013.
77. J. Liu, G. A. Milne, R. E. Kopp and I. Shennan (2013). Constraining the source distribution of MWP-1A using near- and far-field data and modeling constraints. American Geophysical Union Fall Meeting, San Francisco, CA, December 2013.
78. * R. E. Kopp (2014). Uncertainties and risks of regional sea-level change: Past, present and future. Pardee Center for the Longer-Range Future, Boston University, Boston, MA, February 2014. <http://goo.gl/ZTyNFb>
79. * R. E. Kopp (2014). Uncertainties and risks of regional sea-level change: Past, present and future. Department of Earth Sciences, University of New Hampshire, Durham, NH, February 2014.
80. * R. E. Kopp (2014). Probabilistic projections of future sea-level change and their implications for flood risk management. Eastern Coastal Infrastructure and Climate Change: Science, Impacts, Planning, and Response, Crystal City, VA, February 2014.
81. J. X. Mitrovica, J. Austermann, C. Hay, N. Gomez, J. R. Creveling, and R. E. Kopp (2014). The Sea-Level Fingerprints of Ice-Sheet Collapse During Interglacial Periods. European Geophysical Union 2014 General Assembly, Vienna, Austria, April 2014.
82. * R. E. Kopp (2014). A pathway toward characterizing climate risks across space and time: An example of sea-level change and flood risk. Resources for the Future First Wednesday Seminar: Limits to Securitization – the Future of Insurance, Washington, DC, June 2014. <http://goo.gl/jQsqFw>
83. * T. Houser, S. M. Hsiang, and R. E. Kopp (2014). A Discussion of the Independent Risk Assessment for *Risky Business: The Economic Risks of Climate Change in the United States*. Resources for the Future, Washington, DC, June 2014. <http://goo.gl/4IGbOl>
84. * R. E. Kopp (2014). *American Climate Prospectus: Economic Risks in the United States*. Energy Modeling Forum Workshop on Climate Change Impacts and Integrated Assessment, Snowmass, CO, July 2014.
85. * R. E. Kopp (2014). Sea-level rise and extreme events: Insights from the *American Climate Prospectus*. Energy Modeling Forum Workshop on Climate Change Impacts and Integrated Assessment, Snowmass, CO, July 2014. <https://emf.stanford.edu/events/climate-change-impacts-integrated-assessment-xx-ccii>
86. * R. E. Kopp (2014). Assessing the economic risks of extreme weather in a changing climate. Climate Engineering Conference 2014, Berlin, August 2014. <https://emf.stanford.edu/events/climate-change-impacts-integrated-assessment-xx-ccii>

87. B. Horton, A. Kemp and R. Kopp (2014). Reconstructing Common Era Sea Level I: Lessons from the U.S. Atlantic Coast. PALSEA2 Workshop, Lochinver, Scotland, September 2014.
88. R. Kopp, A. Kemp, K. Bittermann, J. Donnelly, C. Hay, J. Mitrovica, E. Morrow, S. Rahmstorf, and B. Horton (2014). Reconstructing Common Era Sea Level II: An Integrated Analysis. PALSEA2 Workshop, Lochinver, Scotland, September 2014.
89. * R. E. Kopp (2014). Panelist, Systemic Risk in Global Agriculture Princeton-Columbia Joint Conference. Princeton University, Princeton, NJ, October 2014. <http://risk.princeton.edu/archive.html#agconf>
90. * R. E. Kopp (2014). Panelist, conference on the Economic and Financial Risks of a Changing Climate. Resources for the Future, Washington, DC, November 2014.
91. * R. E. Kopp (2014). The Risk Perspective of the *American Climate Prospectus*. European Commission Joint Research Council Global Risk Conference, Seville, Spain, December 2014. <http://goo.gl/P0A4sQ>
92. * R. E. Kopp (2014). Empirically calibrated damages: Insights from the *American Climate Prospectus*. Princeton Environmental Institute Climate Futures Initiative Integrated Assessment Modeling Workshop, Princeton, NJ, December 2014.
93. * R. Kopp, T. Houser, S. Hsiang, K. Larsen, A. Jina, M. Delgado, R. Muir-Wood, D. J. Rasmussen, J. Rising, M. Mastrandrea, and P. Wilson (2014). Climate risks over space and time: Insights from the *American Climate Prospectus*. Society for Risk Analysis Annual Meeting, Denver, CO, December 2014.
94. * C. C. Hay, E. Morrow, R. Kopp, and J. X. Mitrovica (2014). A Revised Estimate of 20th Century Global Mean Sea Level. American Geophysical Union Fall Meeting, San Francisco, CA, December 2014.
95. * K. Gordon, T. Houser, R. Kopp, S. Hsiang, K. Larsen, A. Jina, M. Delgado, R. Muir-Wood, D. J. Rasmussen, J. Rising, M. Mastrandrea, and P. Wilson (2014). *Risky Business* and the *American Climate Prospectus*: Economic Risks of Climate Change in the United States. American Geophysical Union Fall Meeting, San Francisco, CA, December 2014.
96. * B. P. Horton, A. C. Kemp, and R. E. Kopp (2014). Common Era Sea-Level Change. American Geophysical Union Fall Meeting, San Francisco, CA, December 2014.
97. * A. Jina, S. Hsiang, R. Kopp, D.J. Rasmussen, and J. Rising (2014). Putting climate impact estimates to work: the empirical approach of the *American Climate Prospectus*. American Geophysical Union Fall Meeting, San Francisco, CA, December 2014.
98. R. E. Kopp, S. Hsiang, T. Houser, K. Larsen, D. J. Rasmussen, A. Jina, J. Rising, M. Delgado, S. Mohan, R. Muir-Wood, and P. Wilson (2014). Managing U.S. climate risk through mitigation: Insights from the *American Climate Prospectus*. American Geophysical Union Fall Meeting, San Francisco, CA, December 2014.
99. * R. E. Kopp, M. Delgado, R. M. Horton, T. Houser, C. M. Little, R. Muir-Wood, M. Oppenheimer, D. J. Rasmussen, R. H. Strauss, C. Tebaldi, and P. Wilson (2014). Probabilistic projections of future sea-level change and their implications for flood risk management: Insights from the *American Climate Prospectus*. American Geophysical Union Fall Meeting, San Francisco, CA, December 2014.
100. * J. X. Mitrovica, C. C. Hay, R. E. Kopp, and E. Morrow (2014). The Sea Level Fingerprints of Global Change. American Geophysical Union Fall Meeting, San Francisco, CA, December 2014.
101. * R. E. Kopp (2015). Uncertainties and risks of regional sea-level change: Past, present and future. University of Connecticut Marine Sciences Seminar, Groton, CT, January 2015.
102. * R. E. Kopp (2015). Uncertainties and risks of regional sea-level change. FEMA Technical Mapping Advisory Council, Subcommittee on Future Conditions. Webinar, April 2015.
103. * R. E. Kopp (2015). Panelist, New Economics of Coastal Climate Change Adaptation. Urban Coast Institute and Center for the Blue Economy, Washington, DC, April 2015.
104. * R. E. Kopp (2015). Panelist, Next American Economy project. Roosevelt Institute, New York, NY, May 2015.
105. * R. E. Kopp (2015). Piecing together sea-level change in the Quaternary and the Anthropocene. International Union for Quaternary Research Congress, Nagoya, Japan, July 2015.

106. * R. E. Kopp (2015). Climate change: current status and future risks. Aspen Institute Program on the World Economy, Aspen, CO, August 2015.
107. * R. E. Kopp (2015). Sea-level rise: Assessing the risks, estimating the costs. Energy Policy Institute at Chicago (EPIC) seminar, University of Chicago, Chicago, IL, September 2015. http://youtu.be/bagRtnY_Xm8
108. * R. E. Kopp (2016). Uncertainties and risks of sea-level change: Past, present and future. Hong Kong University of Science and Technology, Hong Kong, January 2016.
109. * R. E. Kopp, R. Shwom, G. Wagner, J. Yuan (2016). Tipping elements, tipping points, and economic catastrophes: The state of knowledge. Climate Damages and Tipping Points Workshop, Arizona State University, Phoenix, AZ, January 2016.
110. * R. E. Kopp (2016). Treatment of uncertainty in climate change risk assessments. NAS Workshop on Methods for Characterizing Risk in Climate Change Assessments, Washington, DC, March 2016. <http://goo.gl/azyHx3>
111. * R. E. Kopp (2016). Global sea-level change, past and future. Rising Seas & Extreme Events Symposium, University of Delaware, Newark, DE, April 2016.
112. * R. E. Kopp (2016). Economic Risks of Climate Change: *An American Prospectus*, and the path to a global assessment. EPRI ENV-VISION, Washington, DC, May 2016.
113. * R. E. Kopp (2016). Probabilistic sea-level rise projections for the Chesapeake Bay. Remote presentation to Chesapeake Bay Program Climate Resiliency Working Group, May 2016.
114. * R. E. Kopp (2016). Assessing the risks of sea-level rise. Scripps Institution of Oceanography, La Jolla, CA, July 2016.
115. R. Kopp, A. Kemp, B. Horton, C. Little and A. Garner (2016). Regional Common Era sea level in the North Atlantic: In search of missing processes. PALSEA2 Workshop, Mt. Hood, OR, September 2016.
116. * R. E. Kopp (2016). Assessing the risks of sea-level rise. Stanford University Department of Earth System Science, Stanford, CA, October 2016.
117. * R. E. Kopp (2016). Regional sea-level projections: What drives uncertainty where? American Geophysical Union Fall Meeting, San Francisco, CA, December 2016.
118. * R.E. Kopp (2017). Assessing the risks of sea-level rise. U.S. Naval Academy Oceanography Department, Annapolis, MD, January 2017.
119. * R.E. Kopp (2017). Assessing the risks of sea-level rise. ExxonMobil, Clinton, NJ, February 2017.
120. * R.E. Kopp (2017). Assessing the risks of sea-level rise. Rutgers University–Newark Department of Earth & Environmental Sciences, Newark, NJ, March 2017.
121. * R.E. Kopp (2017). Challenges and opportunities for benefit-cost IAMs: Lessons from the National Academies' social cost of carbon project. Workshop on Climate Policy and Integrated Assessment Modelling, Princeton, NJ, March 2017.
122. * R.E. Kopp (2017). Challenges of projecting local sea-level changes. American Physical Society March Meeting, New Orleans, LA, March 2017.
123. * R.E. Kopp (2017). Inspecting the dice: The probabilistic current in sea-level rise projections. International WCRP/IOC Conference: Regional Sea Level Changes and Coastal Impacts, New York, NY, July 2017.
124. * R.E. Kopp (2017). Coastal risks in an age of sea-level change. Montclair State University Sustainability Seminar Series, Montclair, NJ, October 2017.
125. * R.E. Kopp (2017). Sea-level rise and coastal risk. National Academies of Sciences Division of Earth and Life Studies, Washington, DC, October 2017.
126. * R.E. Kopp (2017). Current approaches to assessing risks of sea-level rise. Society for Risk Analysis Annual Meeting, Arlington, VA, December 2017.
127. * R.E. Kopp (2017). The Climate Science Special Report: Rising Seas and Changing Oceans. American Geophysical Union Fall Meeting, New Orleans, LA, December 2017. <https://youtu.be/fDJP5RgKkj4?t=43m37s>

128. * R.E. Kopp (2017). Probabilistic mapping of past and future sea-level change. American Geophysical Union Fall Meeting, New Orleans, LA, December 2017. <https://youtu.be/3BFnCOBtCC4?t=1h1m30s>
129. * R.E. Kopp (2018). Coastal risks in an age of sea-level change. Roosevelt Institute Next American Economy Project Seminar, New York, NY, January 2018.
130. * R.E. Kopp (2018). Coasts in times of sea-level rise. Yale School of Forestry & Environmental Studies, New Haven, CT, January 2018. <https://youtu.be/GN3vE6pPRzY>
131. R.E. Kopp (2018). *Climate Science Special Report: Potential Surprises*. AAAS Annual Meeting, September 2018. <https://youtu.be/GN3vE6pPRzY>
132. * R.E. Kopp (2018). Coasts in times of sea-level rise. Rutgers University-New Brunswick Chancellor's Colloquium, New Brunswick, NJ, February 2018.
133. * R. E. Kopp (2018). Managing climate risk: Rising seas and coastal flooding as a case study. Princeton Science, Technology and Environmental Policy seminar, Princeton, NJ, March 2018.
134. * R. E. Kopp (2019). Paleo sea level: Statistical approaches and implications for future change. Syracuse University Department of Earth Sciences, Syracuse, NY, April 2019.
135. * R. E. Kopp (2019). Mapping sea-level change in time, space, and probability. New York Scientific Data Summit, New York, NY, June 2019.
136. * R. E. Kopp (2019). Antarctic instability, uncertain sea-level rise, and implications for coastal flood risk. At What Point Managed Retreat?, New York, NY, June 2019.
137. * R. E. Kopp (2019). Sea-level rise uncertainty. NAS Committee to Advise the USGCRP. Remote presentation, July 2019.
138. * R. E. Kopp (2019). Sea-level rise and coastal adaptation. Graduate studio on design and the Green New Deal. Weitzman School of Design, University of Pennsylvania. Philadelphia, PA, Sept. 2019.

Selected Public Presentations

1. "Echoes of Ancient Times: Climate Change in Earth's Past and Our Future", Liz Levin & Company Leadership Salon Series, Boston, MA, February 2008.
2. "Melting Ice Sheets in Earth's Past and Our Future", Philadelphia Geological Society, Philadelphia, PA, January 2010.
3. Panelist on "Jobs and the Environment," U.S. EPA/Rutgers University conference on "Greening New Jersey Communities from the Ground Up," New Brunswick, NJ, October 2011.
4. "Solar Energy in the Global Energy System: Flows, Needs, Status, and Drivers," Siemens Solar Exchange East 2012, Piscataway, NJ, May 2012.
5. Panelist, Rutgers University Earth Day Film Festival, New Brunswick, NJ, April 2013.
6. Panelist, Putting a Price on Carbon: The Social Cost of Carbon and U.S. Climate Policy, Bard Center of Environmental Policy and Pace Law School, White Plains, NY, May 2013.
7. "Rising Tide: what can the past tell us about future sea-level change?", Rutgers University Geology Museum Open House, New Brunswick, NJ, January 2014.
8. Panelist, Environmental New Jersey and NJPIRG Student Chapter Solar Panel Roundtable, New Brunswick, NJ, December 2014.
9. Panelist, Climate Leadership Conference, Arlington, VA, February 2015.
10. "Economic Risks of Climate change: An American Prospectus," North Jersey Public Policy Network talk, Hackensack, NJ, September 2015.
11. "Food for Tomorrow: Risks of a Changing Climate," *New York Times* Food for Tomorrow Conference, Stone Barns, NY, October 2015. <https://youtu.be/8n6eYsQ4e08>.
12. Panelist, Conference on Sustainable, Responsible, Impact Investing. Colorado Springs, CO, November 2015.
13. Panelist, NJPIRG New Jersey Solar Summit, New Brunswick, NJ, December 2015.

14. "Climate Change: Economic risks to Maryland", NAIOP Maryland Commercial Real Estate Policy Conference, Towson, MD, December 2015.
15. "Coasts in Times of Sea-Level Rise", Rutgers University Institute of Earth, Ocean, and Atmospheric Sciences public lecture, New Brunswick, NJ, Oct. 2016. <https://youtu.be/4pcnkokIXpQ>
16. "Coasts in Times of Sea-Level Rise," HBCU Climate Change Conference, New Orleans, LA, March 2017.
17. Panelist, "Kim Stanley Robinson's *New York 2140*", Rutgers University, New Brunswick, NJ, April 2017. <https://youtu.be/MxpzGg022do>
18. "Probabilities and deep uncertainties in sea-level rise projections," Water Utility Climate Alliance webinar, May 2017.
19. "The Shore in an age of sea-level rise," C-Change Conversations, Princeton, NJ, June 2017.
20. "Frontiers in sea-level rise projections: Local effects, probabilities, and deep uncertainties," Canadian Climate Forum webinar on sea-level rise, June 2017.
21. Panelist, "What Markets Can Learn from Modeling Value at Risk from Climate Change", CFA Society of New York conference "Climate Change is a Given – How to Drive Value and Manage Risk," October 2017.
22. "New Jersey in a Warming World: What's At Stake," New Jersey Mayors' Climate Summit, New Brunswick, NJ, February 3, 2018.
23. "Rising Seas in California," testimony to California Ocean Protection Council, Sacramento, CA, March 14, 2018. <https://goo.gl/vyybU5>
24. Witness, "The Impacts of Climate Change on New Jersey's Coasts," New Jersey State Assembly Committee on Environment and Solid Waste, Trenton, NJ, March 22, 2018.
25. "New Jersey in a Warming World: What's At Stake," Bloustein Trenton Public Policy Lecture, Trenton, NJ, April 10, 2018.
26. "Climate Risk in New Jersey: A Scientific Update," New Jersey Coastal Resilience Summit: Charting a Course for the Future, Long Branch, NJ, October 8, 2018.
27. Witness, "The State of Climate Science and Why It Matters," U.S. House of Representatives Committee on Science, Space, and Technology, Washington, DC, February 13, 2019.
28. "Managing Coastal Risk in an Age of Sea-Level Rise," Princeton Plasma Physics Lab Science on Saturday, Princeton, NJ, March 2, 2019.
29. Witness, Joint Hearing of the New Jersey State Senate Environment and Energy Committee and the General Assembly Environment and Solid Waste Committee, Trenton, NJ, April 25, 2019.
30. "Managing coastal risk in an age of sea-level rise," Syracuse University Environment, Sustainability and Policy and Geoffrey O. Seltzer Lecture, Syracuse, NY, April 15, 2019.
31. "Understanding and managing the risks of climate change," Panel on Climate Disasters and Green New Deal, New School for Social Research, New York, NY, September 3, 2019.

Selected Media Appearances

1. Featured in: Maryland Sea Grant (2013), Forecasting sea level rise for Maryland. July 2013. <http://youtu.be/RCc3C89qxOM>.
2. "The economic impact of climate change," *Radio Times with Marty Moss-Coane*, WHYY, July 1, 2014. <http://goo.gl/DfPnc9>.
3. "Sudden heat," *Radio Ecoshock*, June 24, 2015. <https://goo.gl/e3TWX8>.
4. Featured in: New Jersey Climate Adaptation Alliance (2015), Climate Change and the Jersey Shore. November 2015. <https://youtu.be/zZn5Xh5FD88>
5. "New report blames most rising seas on humans — but this scientist remains hopeful," *PRI's The World*, February 23, 2016. <http://goo.gl/RuhXl3>
6. "Rising sea levels," *Radio Times with Marty Moss-Coane*, WHYY, February 29, 2016. <http://goo.gl/zWLUsw>

7. "The Climate Is Changing while Politics Stays the Same," *To The Point*, KCRW, April 4, 2016. <http://goo.gl/KGfk2Z>
8. "Episode 45: Climate Science Part 3 – Paleoclimate," Energy Transition Show, June 14, 2017. <http://xenetwork.org/ets/episodes/episode-45-paleoclimate/>
9. "Do we need to be 'scared straight' on climate change?," *To The Point*, KCRW, July 14, 2017. <https://goo.gl/C3eBZF>
10. "Rising Sea Levels Put Coastal Cities At Risk," *The Real News*, July 20, 2017. <https://goo.gl/CPdo3U>
11. "Will the Federal Climate Change Report Alter the Debate?," Knowledge@Wharton, November 10, 2017. <http://knowledge.wharton.upenn.edu/article/new-federal-climate-change-report/>
12. "Blunt assessment from climate scientist Robert Kopp: NJ's coastline could disappear quickly," interview in *Newark Star-Ledger*, November 13, 2017. <https://goo.gl/MCYLNA>
13. "Dr. Robert Kopp on the Latest Climate Report," Planet Watch Radio, January 8, 2018. <http://planetwatchradio.com/dr-robert-kopp-latest-climate-report-pw006/>
14. "Climate change: the talks, the costs, and the consequences," *Radio Times with Mary Cummings-Jordan*, WHYY, November 30, 2018. <https://goo.gl/H2Q4oa>
15. "Where Will Climate Change Impact The US? Everywhere," *Science Friday*, November 30, 2018. <https://goo.gl/JVgHNp>
16. "Demystifying Sea Level Rise, with Robert Kopp of Rutgers University," *Resources Radio*, January 24, 2019. <https://bit.ly/2IbXmvp>
17. "As new report warns of rapidly rising seas, officials push for action on climate change," *NJTV News*, December 20, 2019. <https://bit.ly/35PRhXP>

Grants

1. PI for "Integrated Climate/Economic Modeling for Domestic and International Regulatory Analysis", Pacific Northwest National Laboratory, 11/1/2011–9/30/2014. \$75,873
2. PI for "Collaborative Research: P2C2 – Statistical estimation of past ice sheet volumes from paleo-sea level records," National Science Foundation ARC-1203415, 7/1/2012–6/31/2016. \$466,079
3. PI for "Development of historically-calibrated sea-level rise projections for risk management along the New Jersey shore," New Jersey Sea Grant Consortium Project #6410-0012, 2/1/2014–1/31/2017. \$139,784
4. Co-PI for "Collaborative Research: EaSM-3: Regional decadal predictions of coupled climate-human systems," National Science Foundation OCE-1419584, 9/1/2014–8/31/2018. \$800,000
5. Co-PI for "Collaborative Research: Sea-Level Variability in the Common Era," National Science Foundation OCE-1458904, 4/1/2015–3/31/2018. \$255,428
6. PI for "Global Climate Prospectus: Physical Projections," Rhodium Group, 10/15/2015–6/30/2022. \$743,461
7. PI for "Integrated Assessment of Climate Change, Tipping Points and Economic Catastrophes: A Scoping Analysis", Environmental Defense Fund, 11/1/2015–12/31/2016. \$14,999
8. Co-PI for "Communicating about flood risks to real estate market segments in New Jersey", New Jersey Sea Grant, 2/1/2016–1/31/2019. \$139,987
9. PI for "NRT: Coastal Climate Risk & Resilience," National Science Foundation DGE-1633557, 9/1/2016–8/31/2021. \$2,995,055
10. Co-PI for "Investigating Changing Flood Risks for the U.S. Atlantic Coast," Community Foundation of New Jersey, 9/1/2016–8/31/2018. \$100,000
11. PI for "Collaborative Research: P2C2 – Reconstructing rates and sources of sea-level change over the last ~ 150 thousand years from a new coral database," National Science Foundation OCE-1702587, 6/15/2017–5/31/2020. \$328,640

12. PI for “Collaborative Research: PREEVENTS Track 2: Thresholds and envelopes of rapid ice-sheet retreat and sea-level rise: reducing uncertainty in coastal flood hazards,” National Science Foundation ICER-1663807, 8/1/2017–7/31/2021. \$699,800
13. Co-PI for “Sea Level Change Science Team: Improving sea level projection and risk analysis linking physics & observations,” National Aeronautics and Space Administration 80NSSC17K0698 (subaward from the University of California, Irvine), 9/19/2017–4/30/2020. \$417,286
14. PI for “Collaborative Research: P2C2 – Connecting Common Era climate and sea level variability along the Eastern North American coastline,” National Science Foundation OCE-1804999, 6/1/2018–5/31/2020. \$177,318
15. PI for “Collaborative Research: Multi-Proxy Sea-Level Reconstructions And Projections In The Middle Pacific Ocean,” National Science Foundation OCE-1831450, 6/1/2018–5/31/2020. \$82,650

Students and Postdocs

Primary advisees

1. Erica Ashe, Rutgers University, Ph.D. '18 in Statistics and Biostatistics (2013-2018)
2. Kristen Joyse, Rutgers University, Ph.D. candidate in Geological Sciences and Coastal Climate Risk & Resilience (2016-)

Committee member for

1. Ronidell Baluyot, Rutgers University, M.S. '13 in Geological Sciences (2012-2013)
2. Shankar Chandramowli, Rutgers University, Ph.D. '15 in Public Policy (2013-2015)
3. Joseph Majkut, Princeton University, Ph.D. '14 in Atmosphere & Ocean Sciences (2014)
4. Maya Buchanan, Princeton University, Ph.D. '17 in Public Policy (2014-2017)
5. Jennifer Walker, Rutgers University, Ph.D. '19 in Oceanography (2016-2019)
6. D. J. Rasmussen, Princeton University, Ph.D. candidate in Public Policy (2015-)
7. Chris Johnson, Rutgers University, Ph.D. candidate in Geological Sciences (2018-2019)
8. Megan Lickley, MIT, Ph.D. candidate in Earth and Planetary Sciences (2018-)
9. Ian Bolliger, UC-Berkeley, Ph.D. candidate in Energy & Resources Group (2019-)
10. Ashlyn Spector, Rutgers University, M.S. candidate in Geological Sciences and Coastal Climate Risk & Resilience (2019-)
11. Laura Geronimo, Rutgers University, Ph.D. candidate in Planning & Public Policy and Coastal Climate Risk & Resilience (2019-)

External reviewer for

1. Robert Bierkandt, Universität Potsdam, Dr. rer. nat. '16 in Physics
2. Ethan Coffel, Columbia University, Ph.D. candidate in Earth & Environmental Sciences (2018)

Student projects supervised

1. Sonia Tikoo, California Institute of Technology, B.S. '08 in Geobiology (research project, 2006-2007)
2. Rachel Barr, Princeton University, Ph.D. candidate in Public Policy (independent study, 2012)
3. Corie Hlavaty, Rutgers University, B.S. '13 in Geological Sciences (senior thesis, 2012-2013)
4. Kinan Tadmori, Rutgers University, B.S. '15 in Biological Sciences/Environmental Policy (research project, 2012-2013)
5. Andrew Wang, Rutgers University, B.S. '13 in Mechanical Engineering (research project, 2012-2013)
6. Zeal Shah, Rutgers University, B.S. '15 in Mechanical Engineering (research project, 2013-2014)

7. Emily Zee, Rutgers University, B.S. '16 in Mechanical Engineering (research project, 2013-2014)
8. Rachel DiSciullo, Rutgers University, B.S. '17 in Mechanical Engineering (research project, 2015-2016)
9. Christina Williamson, Pomona University (summer undergraduate research experience, 2016)

Student projects co-advised

1. Jean Liu, University of Toronto, M.S. '13 in Earth Sciences (2012-2013)
2. Eric Morrow, Harvard University, Ph.D. '14 in Earth & Planetary Sciences (2012-2014)
3. Kendra McKoy, Rutgers University, M.S. candidate in Geological Sciences (2012-2015)
4. Cuong Tran, Rutgers University, Ph.D. candidate in Computer Science (2013-2015)
5. Chintan Dalal, Rutgers University, Ph.D. candidate in Computer Science (2013-2016)

Postdoctoral mentees

1. Jennifer Walker, Rutgers University (2019-)
2. Erica Ashe, Rutgers University (2018-)
3. Gregory Garner, Rutgers University (2018-2019); now faculty at Rutgers University
4. Daniel Gilford, Rutgers University (2018-)
5. Dawei Li, Rutgers University (2018-2019); now postdoc at the University of Massachusetts
6. Andra (Reed) Garner, Rutgers University (2016-2018); now faculty at Rowan University
7. Jiacan Yuan, Rutgers University (2015-2018); now faculty at Fudan University
8. Carling Hay, Harvard University (2012-2017)/Rutgers University (2014-2017); now faculty at Boston College
9. Eric Morrow, Rutgers University (2014-2015)