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CURRICULUM VITAE

Kevin A. Reed

RESEARCH EXPERTISE

Climate Change Attribution; Climate Solutions; Climate Modeling; Tropical Cyclones

EDUCATION

Ph.D. in Atmospheric and Space Science

University of Michigan, Ann Arbor, Michigan
Department of Atmospheric, Oceanic, and Space Sciences
*Thesis Title: An Exploration of Tropical Cyclone Simulations
in NCAR's Community Atmosphere Model*

Sep. 2007 – Jan. 2012
graduation: April 2012

Graduate Certificate in Science, Technology, and Public Policy

University of Michigan, Ann Arbor, Michigan
Gerald R. Ford School of Public Policy

Sep. 2008 – April 2010
graduation: April 2010

M.S. in Atmospheric and Space Science

University of Michigan, Ann Arbor, Michigan
Department of Atmospheric, Oceanic, and Space Sciences

Sep. 2007 – April 2009
graduation: April 2009

B.S. in Physics w/ High Distinction and Phi Beta Kappa

University of Michigan, Ann Arbor, Michigan
Department of Physics

Sep. 2003 – Dec. 2006
graduation: Dec. 2006

PROFESSIONAL EXPERIENCE

Associate Provost for Climate and Sustainability Programming

Stony Brook University, Stony Brook, NY

Oct. 2023 – *present*

**Interim Director of
Academic, Research, and Commercialization Programs**

New York Climate Exchange, New York, NY

Sept. 2023 – *present*

Professor

Stony Brook University, Stony Brook, NY
School Marine and Atmospheric Sciences

Aug. 2023 – *present*

Associate Dean for Research Stony Brook University, Stony Brook, NY School Marine and Atmospheric Sciences	Aug. 2021 – Oct. 2023
Associate Professor Stony Brook University, Stony Brook, NY School Marine and Atmospheric Sciences	Jan. 2020 – Aug. 2023
Assistant Professor Stony Brook University, Stony Brook, NY School Marine and Atmospheric Sciences	Jan. 2015 – Dec. 2019
Advanced Study Program Postdoctoral Fellow National Center for Atmospheric Research, Boulder, CO Climate and Global Dynamics Division	Sept. 2013 – Jan. 2015
AGU/AAAS Congressional Science Fellow American Geophysical Union, Washington, DC	Sept. 2012 – Sept. 2013
Postdoctoral Fellow University of Michigan, Ann Arbor, MI Department of Atmospheric, Oceanic, and Space Sciences	May 2012 – Aug. 2012
Graduate Student Research Assistant University of Michigan, Ann Arbor, MI Department of Atmospheric, Oceanic, and Space Sciences Advisor: Christiane Jablonowski	May 2007 – April 2012
Research Assistant University of Michigan, Ann Arbor, MI Department of Geological Sciences Advisor: Chris Poulsen	Jan. 2007 – May 2007
Undergraduate Student Research Assistant Research Experience for Undergraduates (NSF) Massachusetts Institute of Technology Haystack Observatory, Westford, Massachusetts Advisor: Larisa Goncharenko and Joseph Salah	Jun. 2006 – Aug. 2006
Undergraduate Student Research Assistant Research Experience for Undergraduates (NSF) University of Michigan, Ann Arbor, MI Department of Atmospheric, Oceanic, and Space Sciences Advisor: Nilton Renno	May 2005 – Aug. 2005

ADDITIONAL EXPERIENCE

- Water Vapor in the Climate System Winter School Participant** Feb. 6, 2011 – Feb. 12, 2011
European Cooperation in Science and Technology, Venice, Italy
- UNFCCC Conference of Parties 16 Participant** Nov. 28, 2010 – Dec. 3, 2010
United Nations Framework Convention on Climate Change, Cancun, Mexico
- NSF IPAM Long Program Participant** Apr. 12, 2010 – May 7, 2010
Institute for Pure and Applied Mathematics (IPAM), Los Angeles, CA
Model and Data Hierarchies for Simulating and Understanding Climate
- UNFCCC Conference of Parties 15 Participant** Dec. 9, 2009 – Dec. 16, 2009
United Nations Framework Convention on Climate Change, Copenhagen, Denmark
- AMS Summer Policy Colloquium Participant** May 31, 2009 – Jun. 9, 2009
American Meteorological Society, Washington, DC

HONORS AND AWARDS

- SUNY Chancellor's Award for Excellence in Faculty Service (2023)
Stony Brook University Discovery Prize Finalist (2021)
Runner-up Poster Competition, 2014 Climate Symposium
Awarded NCAR Advanced Study Program Postdoctoral Fellowship (2013-2014)
Selected for American Geophysical Union Congressional Science Fellowship (2012-2013)
2012 ProQuest Distinguished Dissertation Award Honorable Mention, University of Michigan
Department of Energy Graduate Research Environmental Fellowship (2010-2012)
2012 AMS Climate Change Travel Scholarship
2011 Distinguished Achievement Award, University of Michigan
Outstanding Student Paper Award, 2010 American Geophysical Union Fall Meeting
1st Place Session Poster Competition, 2010 UM Engineering Graduate Symposium
Selected to attend AMS Summer Policy Colloquium
Phi Kappa Phi
Phi Beta Kappa
Graduated with High Distinction (top 10% of class)
James B. Angell Scholar
William J. Branstrom Freshman Prize (top 5% of freshman class)
University Honors

REFEREED PUBLICATIONS (students are underlined>)

83. Akinsanola, A. A., G. J. Kooperman, W. M. Hannah, K. A. Reed, A. G. Pendergrass, and W.-C. Hsu (2023), **Evaluation of present-day extreme precipitation over the United States: An inter-**

- comparison of convection and dynamic permitting configurations of E3SMv1**, *Environmental Research: Climate*, in press.
82. Hsu, W.-C., G. J. Kooperman, W. M. Hannah, K. A. Reed, A. A. Akinsanola, and A. G. Pendergrass (2023), **Evaluating Mesoscale Convection Systems Over the US in Conventional and Multiscale Modeling Framework Configurations of E3SMv1**, *J. Geophys. Res.-Atmos.*, in press, doi: [10.1029/2023JD038740](https://doi.org/10.1029/2023JD038740).
81. Huprikar, A., A. M Stansfield, and K. A. Reed (2023), **A Storyline Analysis of Hurricane Irma's Precipitation Under Various Levels of Climate Warming**, *Environ. Res. Lett.*, in press, doi: [10.1088/1748-9326/ad0c89](https://doi.org/10.1088/1748-9326/ad0c89).
80. Camargo, S. J., H. Murakami, N. Bloemendaal, S. Chand, M. S. Deshpande, C. Dominguez-Sarmiento, J. J. González-Alemán, T. R. Knutson, I.-I. Lin, I.-J. Moon, C. M. Patricola, K. A. Reed, M. Roberts, E. Scoccimarro, C. Y. Tam, E. Wallace, L. Wu, Y. Yamada, W. Zhang, and H. Zhao (2023), **An Update on the Influence of Natural Climate Variability and Anthropogenic Climate Change on Tropical Cyclones**, *Tropical Cyclone Research and Review*, 12, 216-239, doi: [10.1016/j.tcr.2023.10.001](https://doi.org/10.1016/j.tcr.2023.10.001).
79. Reed, K.A and M. F. Wehner (2023), **Real-time attribution of the influence of climate change on extreme weather events: A storyline case study of Hurricane Ian rainfall**, *Environ. Res.: Climate*, 2, 043001, doi: [10.1088/2752-5295/acfd4e](https://doi.org/10.1088/2752-5295/acfd4e).
78. Jones, A. D., D. Rastogi, P. Vahmani, A. M. Stansfield, K. A. Reed, T. Thurber, P. A. Ullrich, and J. Rice (2023), **Continental United States climate projections based on thermodynamic modification of historical weather**, *Nature Scientific Data*, 10, 664, doi: [10.1038/s41597-023-02485-5](https://doi.org/10.1038/s41597-023-02485-5).
77. Goldenson, N., W. Krantz, L. R. Leung, L. O. Mearns, D. W. Pierce, K. A. Reed, I. R. Simpson, P. A. Ullrich, A. Hall, A. D. Jones, and S. R. Rahimi-Esfarjani (2023), **Use-Inspired, Process-Oriented GCM Selection: Prioritizing Models for Regional Dynamical Downscaling**, *Bull. Amer. Meteor. Soc.*, 104, E1619–E1629, doi: [10.1175/BAMS-D-23-0100.1](https://doi.org/10.1175/BAMS-D-23-0100.1).
76. Jagannathan, K., S. Buddhavarapu, P. A. Ullrich, A. D. Jones, and HyperFACETS Project Team (2023). **Typologies of actionable climate information and its use**. *Global Environmental Change*, 82, 102732, doi: [10.1016/j.gloenvcha.2023.102732](https://doi.org/10.1016/j.gloenvcha.2023.102732).
75. Sobel, A. H., C.-Y. Lee, S. Bowen, S. J. Camargo, M. A. Cane, A. Clement, B. Fosu, M. Hart, K. A. Reed, R. Seager, and M. K. Tippett (2023), **Near-term tropical cyclone risk and coupled Earth system model biases**, *Proc. Natl. Acad. Sci.*, 120, e2209631120, doi: [10.1073/pnas.2209631120](https://doi.org/10.1073/pnas.2209631120).
74. Reed, K.A., A. M Stansfield, W.-C. Hsu, G. J. Kooperman, A. A. Akinsanola, W. M. Hannah, A. G. Pendergrass, and B. Medeiros (2023), **Evaluating the simulation of CONUS precipitation by storm type in E3SM**, *Geophys. Res. Lett.*, 50, e2022GL102409, doi: [10.1029/2022GL102409](https://doi.org/10.1029/2022GL102409).

73. Stansfield, A. M., and K. A. Reed (2023), **Global Tropical Cyclone Precipitation Scaling with Sea Surface Temperature**, *npj Clim. Atmos. Sci.*, 6, 60, doi: [10.1038/s41612-023-00391-6](https://doi.org/10.1038/s41612-023-00391-6).
72. Silvers, L. G., K. A. Reed, and A. A. Wing (2023), **The Response of the Large-Scale Tropical Circulation to Warming**, *J. Adv. Model. Earth Syst.*, 15, e2021MS002966, doi: [10.1029/2021MS002966](https://doi.org/10.1029/2021MS002966).
71. Bower, E., K. A. Reed, P. A. Ullrich, C. M. Zarzycki and A. G. Pendergrass (2022), **Quantifying extreme precipitation throughout the entire tropical cyclone life cycle**, *J. Hydrometeor.*, 23, 1645-1662, doi: [10.1175/JHM-D-21-0153.1](https://doi.org/10.1175/JHM-D-21-0153.1).
70. Huff, J. J. A., K. A. Reed, J. T. Bacmeister and M. F. Wehner (2022), **Evaluating the influence of CAM5 aerosol configuration on simulated tropical cyclones in the North Atlantic**, *Climate*, 10, 130, doi: [10.3390/cli10090130](https://doi.org/10.3390/cli10090130).
69. Reed, K. A., N. Goldenson, R. Grotjahn, W. J. Gutowski, K. Jagannathan, A. D. Jones, L. R. Leung, S. McGinnis, S. C. Pryor, A. K. Srivastava, P. A. Ullrich, and C. M. Zarzycki (2022), **Metrics as tools for bridging climate science and applications**, *WIREs Climate Change*, 13, e799, doi: [10.1002/wcc.799](https://doi.org/10.1002/wcc.799).
68. Reed, A. T., A. M. Stansfield and K. A. Reed (2022), **Characterizing Long Island's Extreme Precipitation and its Relationship to Tropical Cyclones**, *Atmosphere*, 13, 1070, doi: [10.3390/atmos13071070](https://doi.org/10.3390/atmos13071070).
67. Liu, P., K. A. Reed, S. T. Garner, M. Zhao and Y. Zhu (2022), **Blocking Simulations in GFDL GCMs for CMIP5 and CMIP6**, *J. Climate*, 35, 5053-5070, doi: [10.1175/JCLI-D-21-0456.1](https://doi.org/10.1175/JCLI-D-21-0456.1).
66. Reed, K. A., M. F. Wehner, and C. M. Zarzycki (2022), **Attribution of 2020 hurricane season extreme rainfall to human-induced climate change**, *Nature Communications*, 13, 1905, doi: [10.1038/s41467-022-29379-1](https://doi.org/10.1038/s41467-022-29379-1).
65. Kooperman, G. J., A. A. Akinsanola, W. M. Hannah, A. G. Pendergrass and K. A. Reed (2022), **Assessing two approaches for enhancing the range of simulated scales in the E3SMv1 and the impact on the character of hourly US precipitation**, *Geophys. Res. Lett.*, 49, e2021GL096717, doi: [10.1029/2021GL096717](https://doi.org/10.1029/2021GL096717).
64. Hu, I-Kuan, B. E. Mapes, S. N. Tulich, R. B. Neale, A. Gettelman and K. A. Reed (2022), **Idealized simulations of the tropical climate and variability in the Single Column Atmosphere Model (SCAM): Radiative-convective equilibrium**, *J. Adv. Model. Earth Syst.*, 14, e2021MS002826, doi: [10.1029/2021MS002826](https://doi.org/10.1029/2021MS002826).
63. Wehner, M. F. and K. A. Reed (2022), **Extreme weather event attribution can quantify climate change loss and damages**, *PLOS Climate*, 1, e0000013., doi: [10.1371/journal.pclm.0000013](https://doi.org/10.1371/journal.pclm.0000013).

62. Wu, X., K. A. Reed, P. Callaghan, and J. T. Bacmeister (2022), **Exploring Western North Pacific Tropical Cyclone Activity in the High-Resolution Community Atmosphere Model**, *Earth and Space Science*, 9, e2021EA001862, doi: [10.1029/2021EA001862](https://doi.org/10.1029/2021EA001862).
61. Stansfield, A. M., and K. A. Reed (2021), **Tropical cyclone precipitation response to surface warming in aquaplanet simulations with uniform thermal forcing**, *J. Geophys. Res.-Atmos.*, 126, e2021JD035197, doi: [10.1029/2021JD035197](https://doi.org/10.1029/2021JD035197).
60. Reed, K. A., L. Silvers, A. A. Wing, I.-K. Hu and B. Medeiros (2021), **Using radiative-convective equilibrium to understand impacts of physical parameterizations on clouds, circulation, and climate in the Community Atmosphere Model**, *J. Adv. Model. Earth Syst.*, 13, e2021MS002539, doi: [10.1029/2021MS002539](https://doi.org/10.1029/2021MS002539).
59. Li, F., D. R. Chavas, K. A. Reed, N. Rosenbloom, and D. T. Dawson II (2021), **The role of elevated terrain and the Gulf of Mexico in the production of severe local storm environments over North America**, *J. Climate*, 34, 7799-7819., doi: [10.1175/JCLI-D-20-0607.1](https://doi.org/10.1175/JCLI-D-20-0607.1)
58. Wu, X., K. A. Reed, C. L. P. Wolfe, G. M. Marques, S. D. Bachman, and F. O. Bryan (2021), **The dependence of tropical modes of variability on zonal asymmetry**, *Geophys. Res. Lett.*, 48, e2021GL093966, doi: [10.1029/2021GL093966](https://doi.org/10.1029/2021GL093966).
57. Ullrich, P. A., C. M. Zarzycki, E. E. McClenny, M. C. Pinheiro, A. M. Stansfield, and K. A. Reed (2021), **TempestExtremes v2.1: A Community Framework for Feature Detection, Tracking and Analysis in Large Datasets**, *Geosci. Mod. Dev.*, 14, 5023–5048, doi: [10.5194/gmd-14-5023-2021](https://doi.org/10.5194/gmd-14-5023-2021).
56. Kyrkjebo, N., A. Parris, J. Barnes, I. Azaroff, D. Balk, A. I. Baptista, C. Braneon, W. Calabrese, T. Codrington, J. Colon, F. Ghandi, M. George, P. Groffman, J. Gundlach, R. H. Carr, N. Holt, R. Horton, A. Jahangir, B. Ken-Opurum, K. Knowlton, R. Leichenko, N. Maher, P. Marcotullio, T. Matte, K. McComas, S. K. Mackay, T. McPhearson, R. Moss, G. Nordenson, T. Pawlowski, N. Rajkovich, K. A. Reed, L. Schoemann, J. Shapiro, D. Spiegel-Feld, J. K. W. Tchen, J. Towers, and G. Wagner (2021), **Rapid Research and Assessment on COVID-19 and Climate in New York City**, *J. Extreme Events*, 2150010, doi: [10.1142/S234573762150010X](https://doi.org/10.1142/S234573762150010X).
55. Zarzycki, C. M., P. A. Ullrich and K. A. Reed (2021), **Metrics for evaluating tropical cyclones in climate data**, *J. Appl. Meteor. Climatol.*, 60, 643-660, doi: [10.1175/JAMC-D-20-0149.1](https://doi.org/10.1175/JAMC-D-20-0149.1).
54. Wu, X., K. A. Reed, C. L. P. Wolfe, G. M. Marques, S. D. Bachman, and F. O. Bryan (2021), **Coupled Aqua and Ridge Planets in the Community Earth System Model**, *J. Adv. Model. Earth Syst.*, 13, e10.1029/2020MS002418, doi: [10.1029/2020MS002418](https://doi.org/10.1029/2020MS002418).
53. Reed, K. A., M. F. Wehner, A. M. Stansfield and C. M. Zarzycki (2021), **Anthropogenic Influence on Hurricane Dorian’s Extreme Rainfall** [in “Explaining Extremes of 2019 from a Climate Perspective”], *Bull. Amer. Meteor. Soc.*, 102, S9-S15, doi: [10.1175/BAMS-D-20-0160.1](https://doi.org/10.1175/BAMS-D-20-0160.1).
52. Herrington, A. R., and K. A. Reed (2020), **On resolution sensitivity in the Community Atmosphere Model**, *Quart. J. Roy. Met. Soc.*, 146, 3789– 3807, doi: [10.1002/qj.3873](https://doi.org/10.1002/qj.3873).

51. Sprintall, J., V. Coles, K. A. Reed, A. H. Butler, G. R. Foltz, S. G. Penny and H. Seo (2020), **Best practice strategies for process studies designed to improve climate modeling**, *Bull. Amer. Meteor. Soc.*, 101, E1842–E1850, doi: [10.1175/BAMS-D-19-0263.1](https://doi.org/10.1175/BAMS-D-19-0263.1).
50. Akinsanola, A. A., G. J. Kooperman, K. A. Reed, A. G. Pendergrass and W. M. Hannah (2020), **Projected changes in seasonal precipitation extremes over the United States in CMIP6 simulations**, *Environ. Res. Lett.*, 15, 104078, doi: [10.1088/1748-9326/abb397](https://doi.org/10.1088/1748-9326/abb397).
49. Wing, A. A., C. L. Stauffer, T. Becker, K. A. Reed, M.-S. Ahn, N. Arnold, S. Bony, M. Branson, G. H. Bryan, J.-P. Chaboureau, S. R. de Roode, K. Gayatri, C. Hohenegger, I-K. Hu, F. Jansson, T. R. Jones, M. Khairoutdinov, D. Kim, S. Matsugishi, Z. K. Martin, S. Matsugishi, B. Medeiros, H. Miura, Y. Moon, S. K. Muller, T. Ohno, M. Popp, T. Prabhakaran, D. Randall, R. Rios-Berrios, N. Rochetin, R. Roehrig, D. M. Romps, J. H. Ruppert, Jr., M. Satoh, L. Silvers, M. S. Singh, B. Stevens, L. Tomassini, C. C. van Heerwaarden, S. Wang, and M. Zhao (2020), **Clouds and Convective Self-Aggregation in a Multi-Model Ensemble of Radiative-Convective Equilibrium Simulations**, *J. Adv. Model. Earth Syst.*, 12, e2020MS002138, doi: [10.1029/2020MS002138](https://doi.org/10.1029/2020MS002138).
48. Li, F., D. R. Chavas, K. A. Reed and D. T. Dawson II (2020), **Climatology of severe local storm environments and synoptic-scale features over North America in ERA5 reanalysis and CAM6 simulation**, *J. Climate*, 33, 8339–8365, doi: [10.1175/JCLI-D-19-0986.1](https://doi.org/10.1175/JCLI-D-19-0986.1).
47. Akinsanola, A. A., G. J. Kooperman, A. G. Pendergrass, W. M. Hannah and K. A. Reed (2020), **Seasonal representation of extreme precipitation indices over the United States in CMIP6 present-day simulations**, *Environ. Res. Lett.*, 15, 094003, doi: [10.1088/1748-9326/ab92c1](https://doi.org/10.1088/1748-9326/ab92c1).
46. [Stansfield, A. M.](#), K. A. Reed, C. M. Zarzycki, P. A. Ullrich and D. R. Chavas (2020), **Assessing Tropical Cyclones' Contribution to Precipitation over the Eastern United States and Sensitivity to the Variable-Resolution Domain Extent**, *J. Hydrometeorol.*, 21, 1425–1445, doi: [10.1175/JHM-D-19-0240.1](https://doi.org/10.1175/JHM-D-19-0240.1).
45. [Stansfield, A. M.](#), K. A. Reed and C. M. Zarzycki (2020), **Changes in Precipitation from North Atlantic Tropical Cyclones under RCP Scenarios in the Variable-Resolution Community Atmosphere Model**, *Geophys. Res. Lett.*, 47, e2019GL086930, doi: [10.1029/2019GL086930](https://doi.org/10.1029/2019GL086930).
44. Moon, Y., D. Kim, S. J. Camargo, A. A. Wing, K. A. Reed, M. F. Wehner and M. Zhao (2020), **A new method to construct a horizontal resolution-dependent wind speed adjustment factor for tropical cyclones in global climate model simulations**, *Geophys. Res. Lett.*, 47, e2020GL087528, doi: [10.1029/2020GL087528](https://doi.org/10.1029/2020GL087528).
43. Camargo, S. J., C. Giulivi, A. H. Sobel, A. A. Wing, D. Kim, Y. Moon, J. D. Strong, A. D. Del Genio, M. Kelley, H. Murakami, K. A. Reed, E. Scoccimarro, G. A. Vecchi, M. F. Wehner, C. M. Zarzycki and M. Zhao (2020), **Characteristics of model tropical cyclone climatology and the large-scale environment**, *J. Climate*, 33, 4463–4487, doi: [10.1175/JCLI-D-19-0500.1](https://doi.org/10.1175/JCLI-D-19-0500.1).

42. Hagos, S., G. R. Foltz, C. Zhang, E. Thompson, H. Seo, S. Chen, A. Capotindi, K. A. Reed, C. DeMott and A. Protat (2020), **Atmospheric Convection and Air–Sea Interactions over the Tropical Oceans: Scientific Progress, Challenges, and Opportunities**, *Bull. Amer. Meteor. Soc.*, 101, E253–E258, doi: [10.1175/BAMS-D-19-0261.1](https://doi.org/10.1175/BAMS-D-19-0261.1).
41. Moon, Y., D. Kim, S. J. Camargo, A. A. Wing, A. H. Sobel, H. Murakami, K. A. Reed, E. Scoccimarro, G. A. Vecchi, M. F. Wehner, C. M. Zarzycki and M. Zhao (2020), **Azimuthally Averaged Wind and Thermodynamic Structures of Tropical Cyclones in Global Climate Models and Their Sensitivity to Horizontal Resolution**, *J. Climate*, 33, 1575–1595, doi: [10.1175/JCLI-D-19-0172.1](https://doi.org/10.1175/JCLI-D-19-0172.1).
40. Reed, K. A., A. M. Stansfield, M. F. Wehner and C. M. Zarzycki (2020), **Forecasted attribution of the human influence on Hurricane Florence**, *Science Advances*, 6, 1, doi: [10.1126/sciadv.aaw9253](https://doi.org/10.1126/sciadv.aaw9253).
39. [Varuolo-Clarke, A. M.](https://doi.org/10.1175/JCLI-D-18-0567.1), K. A. Reed and B. Medeiros (2019), **Characterizing the North American Monsoon in the Community Atmosphere Model: Sensitivity to Resolution and Topography**, *J. Climate*, 32, 8355–8372, doi: [10.1175/JCLI-D-18-0567.1](https://doi.org/10.1175/JCLI-D-18-0567.1).
38. Wing, A. A., S. Camargo, A. H. Sobel, D. Kim, Y. Moon, H. Murakami, K. A. Reed, G. A. Vecchi, M. F. Wehner, C. M. Zarzycki and M. Zhao (2019), **Moist static energy budget analysis of tropical cyclone intensification in high-resolution climate models**, *J. Climate*, 32, 6071–6095, doi: [10.1175/JCLI-D-18-0599.1](https://doi.org/10.1175/JCLI-D-18-0599.1).
37. [Herrington, A. R.](https://doi.org/10.1029/2019MS001684), P. H. Lauritzen, K. A. Reed, S. Goldhaber and B. E. Eaton (2019), **Exploring a lower resolution physics grid in CAM-SE-CSLAM**, *J. Adv. Model. Earth Syst.*, 11, 1894–1916, doi: [10.1029/2019MS001684](https://doi.org/10.1029/2019MS001684).
36. Chavas, D. R., and K. A. Reed (2019), **Dynamical aquaplanet experiments with uniform thermal forcing: system dynamics and implications for tropical cyclone genesis and size**, *J. Atmos. Sci.*, 76, 2257–2274, doi: [10.1175/JAS-D-19-0001.1](https://doi.org/10.1175/JAS-D-19-0001.1).
35. Zarzycki, C. M., C. Jablonowski, J. Kent, P. H. Lauritzen, R. Nair, K. A. Reed, P. A. Ullrich, D. Dazlich, R. Heikes, C. Konor, D. Randall, T. Dubos, Y. Meurdesoif, X. Chen, L. Harris, C. Kühnlein, V. Lee, A. Qaddouri, C. Girard, D. M. Hall, M. Giorgetta, D. Reinert, J. Klemp, S.-H. Park, W. Skamarock, H. Miura, T. Ohno, R. Yoshida, R. Walko, A. Reinecke and K. Viner (2019), **DCMIP2016: Results of the supercell test**, *Geosci. Mod. Dev.*, 12, 879–892, doi: [10.5194/gmd-12-879-2019](https://doi.org/10.5194/gmd-12-879-2019).
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PUBLISHED ABSTRACTS (first author)

Reed, K. A., A. M. Stansfield, E. Bower, C. M. Zarzycki and P. A. Ullrich (2019), **Quantifying tropical cyclone rainfall from weather to climate scales in numerical simulations and observations (Invited)**, *AGU Fall Meet. Abstracts*, A12G-01.

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Reed, K. A., B. Medeiros, J. Bacmeister and P. H. Lauritzen (2014), **Global radiative-convective equilibrium in the Community Atmosphere Model: Understanding model sensitivities**, *AGU Fall Meet. Abstracts*, A51E-3084.

Reed, K. A., C. Jablonowski, P.A. Ullrich, J. Kent, M. A. Taylor, P. H. Lauritzen and R. D. Nair (2013), **Multi-model GCM ensemble simulations of idealized tropical cyclones**, *AGU Fall Meet. Abstracts*, A33B-0219.

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Reed, K. A. and C. Jablonowski (2008), **Idealized tropical cyclones in atmospheric general circulation models**, *Eos Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract A33A-0215.

SCIENTIFIC PRESENTATIONS (first author and presenter)

Reed, K. A., **Understanding Climate Change Impacts on Circulation, Clouds, and Precipitation Using a Model Hierarchy** (July 27, 2023), *Invited* oral presentation at the Radiation and Climate Gordon Research Conference, Lewiston, Maine, USA, July 23-28, 2023.

Reed, K. A., **Using the CAM hierarchy to advance understanding of climate change impacts on hurricanes** (Jun. 13, 2023), Oral presentation at the 28th Annual CESM Workshop, Boulder, CO, USA, June 12-15, 2023.

Reed, K. A., **Using a model hierarchy to advance understanding of climate change impacts on hurricanes** (Jun. 5, 2023), Oral presentation at 10th Northeast Tropical Meteorology, Albany, NY, USA, June 5-7, 2023.

Reed, K. A., **Exploring changes in precipitation by storm type in climate models** (May 11, 2023), *Invited* oral presentation to National Academies of Sciences, Engineering, and Medicine Committee on Modernizing Probable Maximum Precipitation Estimation, *Virtual Meeting on Modeling Extreme Precipitation for Modernizing PMP in a Changing Climate*, May 11, 2023.

Reed, K. A., **Quantifying past and future climate change impacts on extreme weather**, *Invited* seminar presentation at the National Centre for Atmospheric Science at the University of Reading, Reading, UK, March 10, 2023.

Reed, K. R., M. F. Wehner, and C. M. Zarzycki, **Operational event attribution frameworks for quantifying climate change impacts** (Mar. 7, 2023), Oral presentation at the World Climate Research Programme Safe Landing Climates Lighthouse Activity Meeting, London, UK, March 7-9, 2023.

Reed, K. A., **Understanding climate change impacts on tropical cyclones using a model hierarchy** (Jan. 12, 2023), *Invited* oral presentation at the 103rd AMS Annual Meeting, Denver, CO, USA, January 8-12, 2023.

Reed, K. A., A. M. Stansfield, W.-C. Hsu, G. J. Kooperman, A. A. Akinsanola, W. M. Hannah, A. G. Pendergrass, and B. Medeiros, **Evaluating the simulation of precipitation by storm type in Energy Exascale Earth System Model** (Dec. 15, 2022), oral presentation at the AGU Fall Meeting 2022, Chicago, IL, USA, December 12-16, 2022.

Reed, K. A., **Modeling frameworks to quantifying past and future climate change impacts on coastal storms** (Oct. 24, 2022), *Invited plenary* presentation at the Ocean Carbon & Biogeochemistry Workshop "C-saw: Time domain controls on carbon storage, release, and transformation in coastal and estuarine waters following extreme events," Raleigh, NC, USA, October 23-26, 2022.

Reed, K. A., **Quantifying past and future climate change impacts on hurricanes**, *Invited* seminar presentation at the Department of Geosciences at the University of Connecticut, Storrs, CT, USA, October 21, 2022.

Reed, K. A., **Science of Attribution**, *Invited* presentation at the 2022 Program on Climate Science and Law in Judicial Leaders in Climate Science Course (Sept. 13, 2022), Woods Hole, MA, USA, September 12-14, 2022.

Reed, K. A., A. M. Stansfield and L. G. Silvers, **Building understanding of convection, circulation, and climate using the CAM hierarchy** (Aug. 30, 2022), Poster presentation at the 2022 Model Hierarchies Workshop, Palo Alto, CA, USA, August 29-September 1, 2022.

Reed, K. A., **CESM as a tool for operational climate change event attribution** (Jun. 16, 2022), Oral presentation at the 27th Annual CESM Workshop, Boulder, CO, USA, June 13-16, 2022.

Reed, K. R., **Event attribution frameworks for quantifying climate change impacts on hurricane hazards** (June 7, 2022), Poster Presentation at Symposium on Hurricane Risk in a Changing Climate, Key Largo, FL, USA, June 5-9, 2022.

Reed, K. R., M. F. Wehner, and C. M. Zarzycki, **Towards Operational Climate Change Attribution during Hurricane Seasons** (May 9, 2022), Oral presentation at the 35th AMS Conference on Hurricanes and Tropical Meteorology, New Orleans, LA, USA, May 9-13, 2022.

Reed, K. A., **Climate Change: What does it mean for Long Island weather?** *Invited* seminar presentation at the Southampton Lecture Serie at Stony Brook University Southampton, Southampton, NY, USA, May 4, 2022.

Reed, K. A., **Hurricane storylines for understanding climate impacts of extreme rainfall** (Apr. 26, 2022), *Invited* oral presentation at the Use of Storylines from Regional Simulation for Climate Hazards and Stakeholder Engagement North American CORDEX *Virtual* Workshop, hosted by Ouranos, Montréal, Québec, Canada, April 25-27, 2022.

Reed, K. A., M. F. Wehner, and C. M. Zarzycki, **An attribution framework to calculate climate change impacts on individual hurricane season** (Mar. 4, 2022), Oral presentation at the *Virtual* Ocean Sciences Meeting 2022, February 28-March 4, 2022.

Reed, K. A., **Improving Modeling of Earth System and Intersectoral Dynamics at Local Scales: Hurricane Storylines** (Feb. 23, 2022), *Invited* oral presentation at the 8th Biennial University of Florida Water Institute Symposium, Gainesville, FL, USA, February 22-23, 2022.

Reed, K. A., M. F. Wehner, and C. M. Zarzycki, **Climate Change Attribution of Extreme Rainfall Throughout Hurricane Season** (Dec. 17, 2021), *Invited* oral presentation at the AGU Fall Meeting 2021, New Orleans, LA, USA, December 13-17, 2021.

Reed, K. R., and M. F. Wehner, **An attribution framework to calculate climate change impacts on hurricane seasons** (Sept. 22, 2021), Poster presentation at the *Virtual* World Climate Research Programme Workshop on Attribution of Multi-annual to Decadal changes in the Climate System, Sept. 22-24, 2021.

Reed, K. R., M. F. Wehner, A. M. Stansfield, and C. M. Zarzycki, **Attributing Changes in Hazards Associated with Recent Devastating North Atlantic Hurricanes to Climate Change** (May 12, 2021), Oral presentation at the 34th *Virtual* AMS Conference on Hurricanes and Tropical Meteorology, May 10-14, 2021.

Reed, K. A., A. M. Stansfield, and E. Bower, **Quantifying the impact of climate change on tropical cyclone rainfall using a model hierarchy** (Apr. 28, 2021), Oral presentation at the *Virtual* EGU General Assembly 2021, April 19-30, 2021.

Reed, K. A., M. F. Wehner, A. M. Stansfield, and C. M. Zarzycki, **Refining Climate Change Event Attribution Capabilities in CAM** (Feb. 10, 2021), Oral presentation at the 2021 *Virtual* Atmosphere Model Working Group Meeting, February 8-12, 2021.

Reed, K. A., M. F. Wehner, A. M. Stansfield, and C. M. Zarzycki, **Event attribution frameworks for quantifying climate change impacts on hurricane rainfall** (Dec. 14, 2020), Oral presentation at the *Virtual* AGU Fall Meeting 2020, December 1-17, 2020.

Reed, K. A., **Detecting climate change impacts on tropical cyclones**, *Invited* seminar presentation at the Department of Atmospheric & Oceanic Science at the University of Maryland, College Park, MD, USA, October 29, 2020.

Reed, K. A., F. Li, D. R. Chavas, and N. A. Rosenbloom, **Reduced Complexity Frameworks for Investigating the Geographic Controls of Severe Local Storm Environments in CAM6** (Mar. 9, 2020), Oral presentation at the 2020 Atmosphere Model Working Group Meeting, Boulder, CO, USA, March 9-11, 2020.

Reed, K. A., M. F. Wehner, A. M. Stansfield, and C. M. Zarzycki, **Attributing changes in Hurricane Dorian's hazards to climate change** (Feb. 21, 2020), *eLightning* poster presentation at the Ocean Sciences Meeting 2020, San Diego, CA USA, February 16-21, 2020.

Reed, K. A., **Detecting climate change impacts on extreme weather**, *Invited* seminar presentation at the Geophysical Fluid Dynamics Laboratory, Princeton, NJ, USA, February 6, 2020

Reed, K. A., **Exploring Climate Change Impacts on Tropical Cyclones**, *Invited* colloquium presentation in the Department of Earth, Ocean, and Atmospheric Science (EOAS) at Florida State University, Tallahassee, FL, USA, January 27, 2020.

Reed, K. A., F. Li and D. R. Chavas, **Investigating the Geographic Controls of Severe Local Storm Environments: From Real World to Reduced Complexity** (Jan. 15, 2020), Oral presentation at the 100th AMS Annual Meeting, Boston, MA, USA, January 12-16, 2020.

Reed, K. A., A. M. Stansfield, E. Bower, C. M. Zarzycki, and P. A. Ullrich, **Quantifying tropical cyclone rainfall from weather to climate scales in numerical simulations and observations** (Dec. 9, 2019), *Invited* oral presentation at the AGU Fall Meeting 2019, San Francisco, CA USA, December 9-13, 2019.

Reed, K. A., **Attributing climate change impacts on extreme weather**, *Invited* seminar presentation in the Climate and Space Sciences and Engineering Department at the University of Michigan, Ann Arbor, MI, USA, November 14, 2019.

Reed, K. A., D. R. Chavas and F. Li, **Understanding Climate Controls of Severe Local Storm Environments over North America** (Nov. 7, 2019), Poster presentation at the 10th European Conference on Severe Storms, Kraków, Poland, November 4-8, 2019.

Reed, K. A., **Detecting climate change impacts on extreme weather**, *Invited* seminar presentation in the Meteorology and Atmospheric Science Department at the Pennsylvania State University, University Park, PA, USA, October 16, 2019.

Reed, K. R., X. Wu, and J. T. Bacmeister, **Investigating West North Pacific Typhoons in a High-Resolution Climate Model** (Aug. 1, 2019), Oral presentation at the 16th Annual Meeting of the Asia Oceania Geosciences Society, Singapore, July 28- Aug. 2, 2019.

Reed, K. A., A. M. Stansfield, C. M. Zarzycki and P. A. Ullrich, **Quantifying potential impacts of climate change on hurricane rainfall and size in high resolution climate simulations** (July 12, 2019), Oral presentation at the 27th International Union of Geodesy and Geophysics, Montreal, Canada, July 8-18, 2019.

Reed, K. A., A. A. Wing and C. Stauffer, **Clouds and convection in RCEMIP simulations with CAM and a hierarchy of models** (Jun. 19, 2019), Oral presentation at the 24th Annual CESM Workshop, Boulder, CO, USA, June 17-19, 2019

Reed, K. A., A. M. Stansfield, M. F. Wehner and C. M. Zarzycki, **Detecting the impact of climate change on rainfall associated with Hurricane Florence** (Jun. 4, 2019), Oral presentation at 9th Northeast Tropical Meteorology, Dedham, MA, USA, June 2-5, 2019.

Reed, K. A., A. M. Stansfield, C. M. Zarzycki and P. A. Ullrich, **An Integrated Evaluation of the Simulated US Hydroclimate System: Focusing on Extreme Rainfall** (May 16, 2019), *Invited* oral presentation at the Florida International University Workshop on Development of Unified Rainfall Scenarios for Florida, Miami, FL, USA, May 16, 2019.

Reed, K. A., A. A. Wing and C. Stauffer, **Convection in Radiative-Convective Equilibrium Simulations Within a Hierarchy of Models** (May 8, 2019), Poster presentation at the US CLIVAR Workshop on Atmospheric Convection and Air-Sea Interactions over the Tropical Oceans, Boulder, CO, USA, May 7-9, 2019.

Reed, K. A., A. M. Stansfield, M. F. Wehner and C. M. Zarzycki, **Detecting the impact of climate change on rainfall associated with North Atlantic hurricanes** (Apr. 12, 2019), Oral presentation at the EGU General Assembly 2019, Vienna, Austria, April 8-12, 2019.

Reed, K. A., A. M. Stansfield, C. M. Zarzycki and P. A. Ullrich, **Quantifying tropical cyclone rainfall and size in high resolution climate simulations** (Mar. 27, 2019), Poster presentation at the CMIP6 Model Analysis Workshop, Barcelona, Spain, March 25-28, 2019.

Reed, K. A., **Detecting climate change impacts on extreme weather**, *Invited* seminar presentation at the Global Modeling and Assimilation Office at NASA's Goddard Space Flight Center, Greenbelt, MD, USA, March 19, 2019.

Reed, K. A. and A. A. Wing, **Clouds and Convection in RCEMIP Simulations with the Community Atmosphere Model** (Feb. 27, 2019), Oral presentation at the 2019 Conference on Understanding Clouds and Precipitation, Berlin, Germany, February 25-March 1, 2019.

Reed, K. A. and D. R. Chavas, **Understanding Controls of Severe Local Storm Environments over North America: Role of Elevated Terrain and the Gulf of Mexico** (Jan. 9, 2019), Oral presentation at the 99th AMS Annual Meeting, Phoenix, AZ, USA, January 6-10, 2019.

Reed, K. A., A. M. Stansfield, C. M. Zarzycki, M. F. Wehner and P. A. Ullrich, **Detecting climate change impacts on North Atlantic hurricane precipitation and size in a high-resolution climate model** (Dec. 10, 2018), Oral presentation at the AGU Fall Meeting 2018, Washington, DC, USA, December 10-14, 2018.

Reed, K. A. and D. R. Chavas, **Understanding the Geographic Controls of Severe Local Storm Environments in the United States: Role of the Gulf of Mexico** (Oct. 22, 2018), Poster presentation at the 29th AMS Conference on Severe Local Storms, Stowe, VT, USA, October 22-26, 2018.

Reed, K. R., A. R. Herrington and P. H. Lauritzen, **Exploring Physics-Dynamics Coupling in CAM Using Reduced Complexity Frameworks** (Sept. 5, 2018), Oral presentation at the European Meteorological Society Annual Meeting, Budapest, Hungary, September 3-7, 2018.

Reed, K. R., and A. R. Herrington, **Reduced Complexity Frameworks for Exploring Physics Dynamics Coupling Sensitivities** (Jul. 10, 2018), Oral presentation at the 3rd Workshop on Physics Dynamics Coupling (PDC18), Reading, United Kingdom, July 10-12, 2018.

Reed, K. R., **Using global models as tools to explore tropical cyclone genesis, structure and impacts**, *Invited* seminar presentation at the United Kingdom Met Office Hadley Centre, Exeter, United Kingdom, July 9, 2018.

Reed, K. A., A. R. Herrington, B. Medeiros and D. R. Chavas, **Reduced Complexity Frameworks for Exploring Resolution Dependence in CAM** (Jun. 18, 2018), Poster presentation at the 23rd Annual CESM Workshop, Boulder, CO, USA, June 18-20, 2018.

Reed, K. R., X. Wu, M. F. Wehner and J. T. Bacmeister, **Exploring the Use of High-Resolution CAM5 for Basin-Scale Projections of Tropical Cyclone Activity** (Jun. 5, 2018), Oral presentation at the 15th Annual Meeting of the Asia Oceania Geosciences Society, Honolulu, HI, USA, June 3-8, 2018.

Reed, K. R., C. M. Zarzycki and M. F. Wehner, **Investigating potential changes in tropical cyclones impacting the U.S. using a high-resolution global model** (May 10, 2018), Poster presentations at 8th GEWEX Open Science Conference, Canmore, Canada, May 6-11, 2018.

Reed, K. R., C. M. Zarzycki, M. F. Wehner, J. J. A. Huff and J. T. Bacmeister, **Investigating potential changes in tropical cyclone overland precipitation in the U.S. due to future climate change** (Apr. 16, 2018), Oral presentation at the 33rd AMS Conference on Hurricanes and Tropical Meteorology, Ponte Vedra Beach, FL, USA, April 16-20, 2018.

Reed, K. R., **Global tropical cyclone activity: from reduced complexity simulations to future projections**, *Invited* seminar presentation in the Department of Climate, Atmospheric Sciences, and Physical Oceanography at Scripps Institution of Oceanography, La Jolla, CA, USA, March 13, 2018.

Reed, K. R., **Exploring climate controls of extreme weather using a high-resolution global model**, *Invited* presentation at the Center for Scientific Research and Higher Education, Ensenada, Mexico, March 9, 2018.

Reed, K. A., A. R. Herrington, B. Medeiros and D. R. Chavas, **Reduced Complexity Frameworks for Exploring Resolution Dependence in Global Models** (Feb. 26, 2018), Poster presentation at 2nd GASS (Global Atmospheric System Studies) panel meeting, Lorne, Australia, February 26 – March 2, 2018.

Reed, K. A., J. Huff, J. Bacmeister, S. C. Bates and N. Rosenbloom, **The potential impact of African dust on the simulation of North Atlantic hurricanes in high-resolution CAM5** (Jan. 10, 2018), Oral presentation at the 98th AMS Annual Meeting, Austin, TX, USA, January 7-11, 2018.

Reed, K. A. and D. R. Chavas, **Understanding the Geographic Controls of Hazardous Convective Weather Environments in the United States** (Dec. 15, 2017), Poster presentation at the AGU Fall Meeting 2017, New Orleans, LA, USA, December 11-15, 2017.

Reed, K. A., J. Huff, M. F. Wehner and J. Bacmeister, **The use of high-resolution climate models to investigate regional projections of tropical cyclone activity** (Aug. 28, 2017), Oral presentation at 2017 Joint IAPSO-IAMAS-IAGA Assembly in Cape Town, South Africa, August 27- September 1, 2017.

Reed, K. A., **High-resolution climate modeling: A tool to study extreme weather on decadal timescales** (Aug. 9, 2017), Oral presentation at the 2017 US CLIVAR Summit, Baltimore, MD, USA, August 8-10, 2017.

- Reed, K. A., M. F. Wehner, J. Bacmeister and J. Huff, **Multi-decadal simulations of tropical cyclone activity using high-resolution CAM5** (Jun. 21, 2017), Oral presentation at 8th Northeast Tropical Meteorology, Albany, NY, USA, June 20-23, 2017
- Reed, K. A., J. Huff, M. F. Wehner and J. Bacmeister, **The use of high-resolution climate models to study the impacts of landfalling hurricanes in the Eastern U.S.** (Jun. 21, 2017), Oral presentation at 6th International Summit on Hurricanes and Climate Change, Crete, Greece, June 4-9, 2017.
- Reed, K. A., J. Bacmeister, M. F. Wehner, S. C. Bates, J. Huff and N. A. Rosenbloom, **Exploring regional projections of tropical cyclone activity through the application of high-resolution climate modeling** (Apr. 25, 2017), *Invited* oral presentation at the EGU General Assembly 2017, Vienna, Austria, April 23-28, 2017.
- Reed, K. A., **Simulations of global tropical cyclone activity: from reduced complexity to future projections**, *Invited* seminar presentation in the Department of Atmospheric Sciences at the University of Hawaii, Honolulu, HI, USA, March 15, 2017.
- Reed, K. A., J. Bacmeister, S. C. Bates, N. A. Rosenbloom and J. Huff, **An atmosphere with no dust: Implications for hurricane activity** (Feb. 28, 2017), Oral presentation at the 2017 Atmosphere Model Working Group Meeting, Boulder, CO, USA, February 27-March 1, 2017
- Reed, K. A., J. Bacmeister, S. C. Bates, N. A. Rosenbloom and J. Huff, **The role of airborne dust in the simulation of global tropical cyclone activity** (Jan. 25, 2017), Poster presentation at the 97th AMS Annual Meeting, Seattle, WA, USA, January 22-26, 2017.
- Reed, K. A., C. Jablonowski, C. M. Zarzycki, P. A. Ullrich, J. Kent, P. Lauritzen and R. Nair, **The Dynamical Core Model Intercomparison Project (DCMIP-2016): Results of the Tropical Cyclone Test Case** (Dec. 14, 2016), Poster presentation at the AGU Fall Meeting 2016, San Francisco, CA, USA, December 12-16, 2016.
- Reed, K. A., B. Medeiros, D. R. Chavas and A. R. Herrington, **Global radiative-convective equilibrium frameworks in CAM** (Nov. 3, 2016), Oral presentation at the World Climate Research Programme Model Hierarchies Workshop, Princeton, NJ, USA, November 2-4, 2016.
- Reed, K. A., **High-resolution global simulations: from reduced complexity to future projections**, *Invited* seminar presentation in the Department of Earth, Atmospheric, and Planetary Sciences at Purdue University, West Lafayette, IN, USA, September 29, 2016.
- Reed, K. A., J. Bacmeister and M. F. Wehner, **High-resolution multi-decadal simulations of tropical cyclone activity using CAM5** (Sept. 20, 2016), Poster presentation at the CLIVAR Open Science Conference, Qingdao, China, September 18-25, 2016.
- Reed, K. A., J. Bacmeister and M. F. Wehner, **Tropical cyclone activity under future warming scenarios using high-resolution CAM5** (Apr. 21, 2016), Oral presentation at the 32nd AMS Conference on Hurricanes and Tropical Meteorology, San Juan, PR, April 18-22, 2016.

Reed, K. A., **Global tropical cyclone simulations of varying complexity**, *Invited* seminar presentation in the Applied Physics & Applied Mathematics Department, Columbia University, New York, NY, USA, February 25, 2016.

Reed, K. A., B. Medeiros and A. R. Herrington, **Continued efforts in reduced complexity modeling with CAM** (Feb. 9, 2016), Oral Presentation at the 2016 Atmosphere Model Working Group Meeting, Boulder, CO, USA, February 8-10, 2016.

Reed, K. A., B. Medeiros and D. R. Chavas, **The use of reduced complexity frameworks for model development** (Jan. 14, 2016), Oral presentation at the 96th AMS Annual Meeting, New Orleans, LA, USA, January 10-14, 2016.

Reed, K. A., and B. Medeiros, **A reduced complexity framework for evaluating convection at high-resolutions** (Dec. 18, 2015), Poster presentation at the AGU Fall Meeting 2015, San Francisco, CA, USA, December 14-18, 2015.

Reed, K. A., **High-resolution global tropical cyclone simulations: from reduced complexity to future projections**, *Invited* seminar presentation in the Department of Atmospheric and Environmental Sciences, University at Albany, Albany, NY, USA, November 9, 2015.

Reed, K. A., **High-resolution GCM simulations of varying complexity**, *Invited* seminar presentation at the Max Planck Institute for Meteorology, Hamburg, Germany, October 27, 2015.

Reed, K. A., M. F. Wehner and J. T. Bacmeister, **Diagnosing interannual variability in tropical cyclone activity in high-resolution Community Atmosphere Model ensemble simulations** (Jul. 1, 2015), Oral presentation at the 26th International Union of Geodesy and Geophysics, Prague, Czech Republic, June 22-July 2, 2015.

Reed, K. A. and B. Medeiros, **Reduced complexity modeling for evaluating convection at high-resolution** (Jun. 15, 2015), Poster presentation at the 20th Annual CESM Workshop, Breckenridge, CO, USA, June 15-18, 2015.

Reed, K. A., J. T. Bacmeister and M. F. Wehner, **Current and future tropical cyclone activity in high-resolution global model ensemble simulations**, Poster presentation at the 5th International Summit on Hurricanes and Climate Change, Crete, Greece, June 9-14, 2015.

Reed, K. A., **High-resolution CAM5 simulations of varying complexity**, *Invited* seminar presentation in the Biological, Environmental and Climate Sciences Department at Brookhaven National Laboratory, Brookhaven, NY, USA, April 24, 2015.

Reed, K. A., and D. R. Chavas, **Understanding the impact of model resolution on tropical cyclones in CAM5 using rotating radiative-convective equilibrium** (Apr. 17, 2015), Oral presentation at the EGU General Assembly 2015, Vienna, Austria, April 12-17, 2015.

Reed, K. A., J. T. Bacmeister, M. F. Wehner, C. Hannay, P. H. Lauritzen, J. E. Truesdale and Prabhat, **CAM5 dynamical core impact on tropical cyclones** (Feb. 19, 2015), Oral Presentation at the 2015 Atmosphere Model Working Group Meeting, Boulder, CO, USA, February 18-20, 2015.

Reed, K. A. **High-resolution CAM5 simulations of current and future climate** (Jan. 19, 2015), *Invited* oral presentation at the Workshop on High-Resolution Climate Simulation, Projection and Application, Taipei, Taiwan, January 19-21, 2015.

Reed, K. A., J. T. Bacmeister, C. Hannay, M. F. Wehner, P. H. Lauritzen and J. E. Truesdale, **Global high-resolution tropical cyclone simulations: climate impacts and model sensitivities** (Jan. 8, 2015), Oral presentation at the 95th AMS Annual Meeting, Phoenix, AZ, USA, January 4-8, 2015.

Reed, K. A., B. Medeiros, J. Bacmeister and P. H. Lauritzen, **Global radiative-convective equilibrium in the Community Atmosphere Model: Understanding model sensitivities** (Dec. 19, 2014), Poster presentation at the AGU Fall Meeting 2014, San Francisco, CA, USA, December 15-19, 2014

Reed, K. A., B. Medeiros, J. Bacmeister and P. H. Lauritzen, **Reduced complexity testbeds for understanding cloud and circulation sensitivities in global atmospheric models** (Oct. 14, 2014), Poster presentation at the Climate Symposium 2014, Darmstadt, Germany, October 13-17, 2014.

Reed, K. A., J. T. Bacmeister, M. F. Wehner, C. Hannay, P. H. Lauritzen, J. E. Truesdale and Prabhat, **Tropical cyclone simulations in CAM5: The impact of the dynamical core** (Jun. 18, 2014), Oral presentation at the 19th Annual CESM Workshop, Breckenridge, CO, USA, June 16-19, 2014.

Reed, K. A., B. Medeiros, J. Bacmeister and P. H. Lauritzen, **Rotating and non-rotating global radiative-convective equilibrium: A testbed for high-resolution AGCMs** (Apr. 29, 2014), Poster presentation at the EGU General Assembly 2014, Vienna, Austria, April 27-May 2, 2014.

Reed, K. A., **Direct simulation of tropical cyclones in global models**, *Invited* seminar presentation in the School of Marine and Atmospheric Sciences at Stony Brook University, Stony Brook, NY, USA, April 24, 2014.

Reed, K. A., B. Medeiros, P. H. Lauritzen, J. Bacmeister and C. Jablonowski, **Idealized tropical cyclone experiments of varying complexity: a tool for model development** (Apr. 11, 2014), Poster presentation at 2014 Partial Differential Equations on the Sphere, Boulder, CO, USA, April 7-11, 2014.

Reed, K. A., J. Bacmeister, M. F. Wehner and B. Medeiros, **Tropical cyclone experiments in the Community Atmosphere Model** (Apr. 1, 2014), Oral presentation at the 31st AMS Conference on Hurricanes and Tropical Meteorology, San Diego, CA, USA, March 31-April 4, 2014.

Reed, K. A., B. Medeiros, J. Bacmeister, P. H. Lauritzen, J. Truesdale, A. Gettelman and B. Eaton, **Rotating and non-rotating global radiative convective equilibrium in CAM** (Feb. 12, 2014), Oral Presentation at the 2014 Atmosphere Model Working Group Meeting, Boulder, CO, USA, February 10-13, 2014.

Reed, K. A., C. Jablonowski, P.A. Ullrich, J. Kent, M. A. Taylor, P. H. Lauritzen and R. D. Nair, **Multi-model GCM ensemble simulations of idealized tropical cyclones** (Dec. 11, 2013), Poster presentation at the AGU Fall Meeting 2013, San Francisco, CA, USA, December 9-13, 2013.

Reed, K. A., **Towards the direct simulation of tropical cyclones in high-resolution General Circulation Models**, *Invited* seminar presentation in the Department of Earth, Atmospheric, and Planetary Sciences at Purdue University, West Lafayette, IN, USA, May 6, 2013.

Reed, K. A., M. F. Wehner, C. Jablonowski and F. Li, **Tropical cyclone climatology in high resolution CAM** (Jun. 20, 2012), Oral presentation at the 17th Annual CISM Workshop, Breckenridge, CO, USA, June 18-21, 2012.

Reed, K. A., M. F. Wehner and C. Jablonowski, **Towards the direct simulation of tropical cyclones in the high-resolution Community Atmosphere Model** (Apr. 25, 2012), Oral presentation at the EGU General Assembly 2012, Vienna, Austria, April 22-27, 2012.

Reed, K. A., C. Jablonowski and M. F. Wehner, **Tropical cyclone characteristics in the high-resolution Community Atmosphere Model** (Apr. 17, 2012), Oral presentation at the 30th AMS Conference on Hurricanes and Tropical Meteorology, Ponte Vedra Beach, FL, USA, April 16-20, 2012.

Reed, K. A., C. Jablonowski and M. F. Wehner, **Tropical cyclone structure in the high-resolution Community Atmosphere Model** (Jan. 27, 2012), Oral presentation at the 1st U.S. CLIVAR Hurricane Working Group Workshop, New Orleans, LA, USA, January 27-28, 2012.

Reed, K. A. and C. Jablonowski, **High-resolution simulations of tropical cyclones in the NCAR Community Atmosphere Model** (Jan. 25, 2012), Oral presentation at the 92nd AMS Annual Meeting, New Orleans, LA, USA, January 22-26, 2012.

Reed, K. A. and C. Jablonowski, **Idealized tropical cyclone simulations of intermediate complexity: a test case for AGCMs** (Dec. 5, 2011), Poster presentation at the AGU Fall Meeting 2011, San Francisco, CA, USA, December 5-9, 2011.

Reed, K. A. and C. Jablonowski, **Towards the simulation of tropical cyclones in high-resolution GCMs: assessing uncertainty** (Oct. 26, 2011), Poster presentation at the World Climate Research Programme Open Science Conference, Denver, CO, USA, October 24-28, 2011.

Reed, K. A. and C. Jablonowski, **Towards the simulation of tropical cyclones in high-resolution GCMs** (Sept. 22, 2011), *Invited* oral presentation at the Workshop on Numerical Methods for Scale Interactions 2011, Hamburg, Germany, September 21-23, 2011.

Reed, K. A. and C. Jablonowski, **Assessing the potential of atmospheric general circulation models to simulate idealized hurricanes** (Aug. 9, 2011), Oral presentation at the Dept. of Energy Global Change Education Program's End-of-Summer Workshop, Knoxville, TN, USA, August 7-9, 2011.

Reed, K. A. and C. Jablonowski, **Assessing the uncertainty of tropical cyclone simulations in GCMs**, Poster presentation at the 3rd International Summit on Hurricanes and Climate Change, Rhodes, Greece, June 27-July 1, 2011.

Reed, K. A., C. Jablonowski and M. A. Taylor, **Evaluating the potential of CAM 5 HOMME to simulate idealized tropical cyclones** (Jun. 20, 2011), Poster presentation at the 16th Annual CESM Workshop, Breckenridge, CO, USA, June 20-23, 2011.

Reed, K. A. and C. Jablonowski, **The ability of NCAR's Community Atmosphere Model to simulate idealized tropical cyclones**, *Invited* seminar presentation as part of the Berkeley Lab – Computer Sciences Seminar at Lawrence Berkeley National Laboratory, Berkeley, CA, USA, May 2, 2011.

Reed, K. A. and C. Jablonowski, **Evaluating the uncertainty of tropical cyclone simulations in general circulation models**, Poster presentation at the 2011 Michigan Geophysical Union (MGU) Meeting, Ann Arbor, MI, USA, March 24, 2011.

Reed, K. A. and C. Jablonowski, **Role of the convection parameterization in AGCM simulations of idealized tropical cyclones**, Poster presentation at the COST Water Vapor in the Climate System Winter School, Venice, Italy, February 6-12, 2011.

Reed, K. A. and C. Jablonowski, **Evaluating the impact of the CAM 4 dynamical core in idealized tropical cyclone simulations** (Jan. 27, 2011), Oral presentation at the 91st AMS Annual Meeting, Seattle, WA, USA, January 23-27, 2011.

Reed, K. A. and C. Jablonowski, **Assessing the significance of varying AGCM physics packages on idealized tropical cyclone simulations** (Dec. 14, 2010), Poster presentation at the AGU Fall Meeting 2010, San Francisco, CA, USA, December 13-17, 2010.

Reed, K. A. and C. Jablonowski, **Evaluating the impact of CAM 4 dynamical core in idealized tropical cyclone simulations**, Poster presentation at the 2010 UM Engineering Graduate Symposium, session: Atmospheric, Oceanic and Space Sciences, Ann Arbor, MI, USA, November 12, 2010.

Reed, K. A. and C. Jablonowski, **Idealized tropical cyclone experiments in high-resolution AGCMs** (June 15, 2010), Poster presentation at the Workshop on High-Resolution Global Modeling, Fort Collins, CO, USA, June 15-17, 2010.

Reed, K. A. and C. Jablonowski, **Idealized tropical cyclones in atmospheric general circulation models: sensitivity to convective parameterizations** (May 14, 2010), Oral presentation at the 29th AMS Conference on Hurricanes and Tropical Meteorology, Tucson, AZ, USA, May 10-14, 2010.

Reed, K. A., **Idealized tropical cyclone experiments in atmospheric general circulation models**, *Invited* seminar presentation as part of Climate Modeling Seminar Series at the NSF Institute for Pure and Applied Mathematics (IPAM), Los Angeles, CA, USA, April 28, 2010.

Reed, K. A. and C. Jablonowski, **Idealized tropical cyclones in atmospheric general circulation models: sensitivity to initial conditions and physics parameterizations** (Jan. 19, 2010), Oral presentation at the 90th AMS Annual Meeting, Atlanta, GA, USA, January 17-21, 2010.

Reed, K. A. and C. Jablonowski, **Idealized tropical cyclones in atmospheric general circulation models: sensitivity to initial conditions and physics parameterizations**, Oral presentation at the 2009 UM Engineering Graduate Symposium, session: Civil, Environmental and Atmospheric Sciences, Ann Arbor, MI, USA, November 13, 2009.

Reed, K. A. and C. Jablonowski, **Idealized tropical cyclones in atmospheric general circulation models**, Poster Presentation at the 2009 Michigan Geophysical Union (MGU) Meeting, Ann Arbor, MI, USA, March 20, 2009.

Reed, K. A. and C. Jablonowski, **Idealized tropical cyclones in atmospheric general circulation models** (Dec. 17, 2008), Poster presentation at the AGU Fall Meeting 2008, San Francisco, CA, USA, December 15-19, 2008.

TEACHING

Instructor, SBU ATM 103: **Extreme Weather**, Fall 2015, Fall 2016, Fall 2017, Fall 2018, Fall 2019, Summer 2020, Fall 2020, Summer 2021, Summer 2022, Fall 2022, Summer 2023, Fall 2023.

Instructor, SBU MAR 595: **Graduate Student Seminar in Atmospheric Sciences**, Fall 2015, Fall 2016, Fall 2017, Fall 2018, Spring 2020, Spring 2021, Spring 2022.

Instructor, SBU **Fundamentals of Offshore Wind program**, Summer 2021.

Instructor, SBU ATM 305: **Global Atmospheric Change**, Spring 2018, Spring 2019, Spring 2020.

Instructor, SBU ATM 365/MAR 565: **Tropical Meteorology**, Spring 2017.

Instructor, SBU ATM/EST 102: **Weather and Climate**, Spring 2016.

Assistant Instructor, UM AOSS 480: **Climate Change: The Move to Action**, Winter 2012.

Guest Lecture, "Climate Change: A Global Issue," UM CICS 101: **Introduction to International Studies**, March 13, 2012.

Guest Lecture, "Hurricane Dynamics," UM AOSS 401: **Geophysical Fluid Dynamics**, October 13, 2011.

Guest Lecture, "Introduction to GCM Physics Parameterizations," UM AOSS 605: **The Art of Climate Modeling**, November 17, 2010.

Guest Lecture, "Running NCAR's CESM 1.0 on the Bluefire Supercomputer," UM AOSS 605: **The**

Art of Climate Modeling, September 27, 2010.

Guest Lecture, “Hurricane Dynamics,” UM AOSS 451: **Atmospheric Dynamics I**, December 1, 2009.

Guest Lecture, “Baroclinic Instability in the Quasi-Geostrophic System,” UM AOSS 451: **Atmospheric Dynamics I**, November 5, 2009.

CURRENT STUDENT MENTORING

Janroy Caraan, B.S. Student, Stony Brook University, expected to graduate in 2024.

John Landy, Ph.D. Student, Stony Brook University, expected to graduate in 2024.

Annika Huprikar, B.S. Student, Harvard University, expected to graduate in 2024.

Mackenzie Laney, M.S. Student (co-advised with Dr. Christopher Gobler), Stony Brook University, expected to graduate in 2027.

Youwei Ma, Ph.D. Student (co-advised with Dr. Christopher Wolfe), Stony Brook University, expected to graduate in 2026.

Harmanveer (Marnee) Singh, Ph.D. Student, Stony Brook University, expected to graduate in 2027.

Magdalena Wrobel, Ph.D. Student, Stony Brook University, expected to graduate in 2027.

FORMER STUDENTS

Justin Bettenhauser, B.S. in Atmospheric and Oceanic Sciences, Stony Brook University, graduated in May 2020. *Current*: M.S. Student at Plymouth State University.

Shannon Bohman, B.S. in Atmospheric and Oceanic Sciences & Applied Math and Statistics, Stony Brook University, graduated in May 2019. *Current*: Staff Associate at Lamont-Doherty Earth Observatory *Previous*: M.S. Student at Columbia University.

Erica Bower, Ph.D. in Atmospheric Science, Stony Brook University, graduated in August 2023. *Current*: Research Scientist at NOAA.

Adam Herrington, Ph.D. in Atmospheric Science, Stony Brook University, graduated in May 2019. *Current*: Project Scientist at National Center for Atmospheric Research. *Previous*: Advanced Study Program Postdoctoral Fellow at National Center for Atmospheric Research.

J. Jacob A. Huff, M.S. in Atmospheric Science, Stony Brook University, graduated in Dec. 2017. *Current*: Research Assistant at the Woodwell Climate Research Center. *Previous*: Visiting Scientist at the Geophysical Fluid Dynamics Laboratory.

Naomi Miller, M.S. in Atmospheric Science (co-advised with Dr. Donovan Finn), Stony Brook University, graduated in August 2023. *Current*: Ph.D. Student at Lehigh University.

Elizabeth Najman, M.S. in Atmospheric Science, Stony Brook University, graduated in May 2020. *Current*: Communications Manager at Recurrent. *Previous*: Climate Risk Analyst at Four Twenty Seven, Inc.

Austin Reed, B.S. in Atmospheric and Oceanic Sciences, Stony Brook University, graduated in May 2021. *Current*: Ph.D. Student at George Mason University.

Alyssa Stansfield, Ph.D. in Atmospheric Science, Stony Brook University, graduated in May 2022. *Current*: NSF Division of Atmospheric and Geospace Sciences Postdoctoral Research Fellowship at Colorado State University.

Justin Willson, B.S. in Physics and Applied Mathematics and Statistics, Stony Brook University, graduated in May 2023. *Current*: Software Engineer at Raytheon.

Xiaoning Wu, Ph.D. in Atmospheric Science (co-advised with Dr. Christopher Wolfe), Stony Brook University, graduated in Aug. 2021. *Current*: Scientist at Risk Management Solutions.

Arianna M. Varuolo-Clarke, M.S. in Atmospheric Science, Stony Brook University, graduated in Aug. 2018. *Current*: Ph.D. Student at Columbia University.

STUDENT HONORS AND AWARDS

Adam Herrington, Awarded NCAR Advanced Study Program Graduate Student Visitor Fellowship (2017-2018)

Alyssa Stansfield, Awarded Stony Brook University Graduate Council Fellowship (2017-2022)

Alyssa Stansfield, Awarded Science Training & Research to Inform Decisions Fellowship (2018-2020)

Arianna Varuolo-Clarke, Selected to attend AMS Summer Policy Colloquium (2018)

Alyssa Stansfield, Recipient of Stony Brook University Institute for Terrestrial and Planetary Atmospheres Xiangding Wu Memorial Award (2018)

Arianna Varuolo-Clarke, Recipient of Stony Brook University School of Marine and Atmospheric Sciences Maze-Landau Graduate Student Travel Award (2018)

Justin Bettenhauser, Recipient of the Timothy Magnussen Scholarship (2018-2019)

Alyssa Stansfield, Awarded School of Marine and Atmospheric Sciences J. R. Schubel Graduate Fellowship at Stony Brook University for translating science into forms that are accessible to the public and/or inform public policy (2019)

Adam Herrington, Stony Brook University School of Marine and Atmospheric Sciences Best Ph.D. Thesis Award (2019)

Adam Herrington, Recipient of NCAR Community Earth System Model Workshop Graduate Student Award (2019)

Xiaoning Wu, Recipient of Stony Brook University Institute for Advanced Computational Science Junior Researcher Award (2019-2021)

Adam Herrington, Awarded NCAR Advanced Study Program Postdoctoral Fellowship (2019-2020)
Xiaoning Wu, Awarded NCAR Advanced Study Program Graduate Student Visitor Fellowship (2019-2020)
Erica Bower, NSF Graduate Research Fellowship Program Honorable Mention (2020)
Alyssa Stansfield, Recipient of Stony Brook University School of Marine and Atmospheric Sciences Maze-Landau Graduate Student Travel Award (2020)
Xiaoning Wu, Awarded School of Marine and Atmospheric Sciences J. R. Schubel Graduate Fellowship at Stony Brook University for translating science into forms that are accessible to the public and/or inform public policy (2020)
Austin Reed, Recipient of Petra M. Udelhofen Scholarship at Stony Brook University (2020).
Xiaoning Wu, Essay Selected for Inclusion in the Allianz Climate Risk Research Award Compendium (2020)
Erica Bower, Recipient of SUNY Chancellor's Graduate Research Empowering and Accelerating Talent Award (2020)
Xiaoning Wu, Outstanding Student Presentation Award at AGU Fall Meeting (2020)
Naomi Miller, Awarded School of Marine and Atmospheric Sciences J. R. Schubel Graduate Fellowship at Stony Brook University for translating science into forms that are accessible to the public and/or inform public policy (2021)
Austin Reed, Named Undergraduate Research and Creative Activities Research of the Month at Stony Brook University (2021)
Austin Reed, Awarded Stony Brook Foundation Dean's Choice Award for Academic Excellence at Stony Brook University (2021)
Erica Bower, Awarded NOAA William Lapenta Student Internship Program (2021)
Justin Willson, Named Undergraduate Research and Creative Activities Research of the Month at Stony Brook University (2021)
Alyssa Stansfield, AGU Precipitation Committee Student Award at AGU Fall Meeting (2021)
Youwei Ma, Stony Brook University School of Marine and Atmospheric Sciences Maze-Landau Fellows (2021-2022)
Erica Bower, Awarded NOAA Pathways Internship Program (2022)
Alyssa Stansfield, Alumni Association's Dean's Choice Award for Leadership at Stony Brook University (2022)
Alyssa Stansfield, Outstanding Oral Presentation at 35th Conference on Hurricanes and Tropical Meteorology (2022)
Alyssa Stansfield, Nuria Protopopescu Memorial Teaching Award from the School of Marine and Atmospheric Sciences (2022)
Alyssa Stansfield, Awarded an NSF AGS Postdoctoral Research Fellowship (2022-2024)

SCIENTIFIC AND COMMUNITY SERVICE

Paper reviewer for *Nature*, *Proceedings of the National Academy of Sciences*, *Science Advances*, *Bulletin of the American Meteorological Society*, *Journal of Climate*, *Geophysical Research Letters*, *Nature Communications*, *Journal of Advances in Modeling Earth Systems*, *Quarterly Journal of the Royal Meteorological Society*, *Journal of Geophysical Research – Atmospheres*, *Journal of the Atmospheric Sciences*, *Journal of Hydrometeorology*, *Geoscientific Model Development*, *Weather and Climate Extremes*, *Climate Dynamics*, *Environmental Research Letters*, *Climatic Change*, *Weather and*

Forecasting, Water Resources Research, Reviews of Geophysics, Weather and Climate Dynamics, Tellus A, npj Climate and Atmospheric Science, Progress in Earth and Planetary Science, Atmosphere, Advances in Atmospheric Sciences, Journal of Water Resources Planning and Management, Scientific Online Letters on the Atmosphere, Meteorology and Atmospheric Physics, and Atmosphere-Ocean.

Proposal reviewer for the *U.S. Department of Energy, U.S. National Science Foundation, U.S. National Aeronautics and Space Administration, U.S. National Oceanic and Atmospheric Administration, U.S. Department of Defense, Helmholtz Association, Poland National Science Center, and Swiss National Supercomputing Centre.*

Member of the National Academy of Sciences Board on Atmospheric Sciences and Climate, 2023 – present.

Member of the International Commission on Dynamic Meteorology of the International Association of Meteorology and Atmospheric Sciences, 2023 – present.

Co-lead of the High Resolution Model Intercomparison Project Phase 2 (HighResMIPv2.0) Working Group, 2023 – present.

Member of F1000Research’s Climate Gateway Advisory Board, 2023 – present.

President of the American Geophysical Union Science and Society Section, 2023 – present.

Editor, American Meteorological Society’s *Journal of Climate*, 2022 – present.

Member of Florida Flood Hub for Applied Research and Innovation’s Workgroup on Future Rainfall Projections, 2022 – present.

Co-lead of the World Climate Research Programme Safe Landing Climates Safe Landing Pathways Working Group, 2022 – present.

Co-chair of NCAR Community Earth System Model Atmospheric Model Working Group, 2021 – present.

Member of the American Geophysical Union Council, 2021 – present.

Member of the World Climate Research Programme Safe Landing Climates Lighthouse Activity Steering Group, 2020 – present.

Member of the American Geophysical Union’s Roger Revelle Medal Committee, 2020 – present.

Co-chair (2022 –) and member of UCAR Governance Task Group, 2020 – present.

Member of University of Michigan Science, Technology, and Public Policy Program Alumni Advisory Board, 2020 – present.

Member of UCAR President's Advisory Committee on University Relations, 2019 – present.

UCAR Member Representative for Stony Brook University, 2015 – present.

Member of Stony Brook University School of Marine and Atmospheric Sciences Promotion and Tenure Committee, 2020 – 2023.

Academic Lead for Stony Brook University's Initiative to be the Anchor Institution of the Climate Solutions Center on Governors Island, 2021 – 2023.

Special Issue Organizer, American Geophysical Union on "Using radiative-convective equilibrium to understand convective organization, clouds, and tropical climate," 2020 – 2023.

Member of the Stony Brook University Senate University Affairs Committee, 2018 – 2023.

Member of American Geophysical Union Science and Society Section Fellows Review Committee, 2022.

Member of Stony Brook University Associate Deans for Research Strategic Council, 2021 – 2022.

President-elect of the American Geophysical Union Science and Society Section, 2021 – 2022.

Member of Dept. of Energy MultiSector Dynamics – Living, Intuitive, Value-adding, Environment (MSD-LIVE) Stakeholder Group, 2021 – 2022.

Member of Stony Brook University Learning Management System Committee, 2021.

Co-chair of Stony Brook University Strategic Budget Initiative Leveraging Existing Infrastructure Working Group, 2021.

Member of Stony Brook University Strategic Budget Initiative Research and Innovation Task Force, 2020 – 2021.

Guest Editor, Atmosphere Special Issue on "Extreme Tropical Cyclones," 2020 – 2021.

Member of Stony Brook University School of Marine and Atmospheric Sciences Dean's Faculty Council, 2018 – 2021.

Member of Stony Brook University School of Marine and Atmospheric Sciences Hiring Committee, 2019 – 2020.

Co-chair (2019 – 2020) and member of UCAR Advocacy for the Science Community (UASC) Committee, 2016 – 2020.

Member of US CLIVAR Scientific Steering Committee, 2019 – 2020.

Member of Stony Brook University Online Teaching Task Force, 2019 – 2020.

Co-chair (2019-2020) and member of US CLIVAR Process Study and Model Improvement Panel, 2016 – 2020.

Member of the American Geophysical Union's Position Statement Committee, 2015 – 2019.

Coordinator for Outstanding Student Paper Award for the Societal Impacts and Policy Sciences Section, AGU Fall Meeting 2017 and 2019.

Regional Representative (and Council Member) for North America to Young Earth System Scientists (YESS) 2016 – 2018.

Sharing Science Champion for the American Geophysical Union's Sharing Science Program, 2016 – 2018.

Member of Organizing Committee, Joint YESS-YHS Early Career Researcher Workshop 2018: Towards Regional Information to Improve Our Understanding on Weather, Water, and Climate Extreme Events, May 3-5, 2018, held at 8th GEWEX Open Science Conference in Canmore, Canada.

Member of Organizing Committee, 2nd World Climate Research Programme Summer School on Climate Model Development: Scale aware parameterization for representing sub-grid scale processes, Jan. 22-31, 2018 held at CPTEC/INPE in São Paulo, Brazil.

Liaison for American Geophysical Union's Societal Impacts and Policy Sciences (SIPS) Focus Group, 2015 – 2017.

Member of the American Geophysical Union's Science for Solutions Award Committee, 2015 – 2017.

Chair of Planning Committee for the American Geophysical Union Student and Early Career Scientist Conference, Dec.10, 2017, held in New Orleans, LA.

Lead-Convener, "Convection Across Scales: Observations, Modeling, and Theory," AGU Fall Meeting 2016, San Francisco, CA, USA, December 12-16, 2016

Member of Lead Organizing Team, Dynamical Core Model Intercomparison Project (DCMIP) Summer School on Future-Generation Non-hydrostatic Weather and Climate Models, June 6-17, 2016, held at NCAR in Boulder, CO.

Application review panelist for 2016 AGU Congressional Science Fellowship Science program.

Lead-Convener, "Convection Across Scales: Aggregation, Organization and Stochasticity," AGU Fall Meeting 2015, San Francisco, CA, USA, December 15-19, 2015.

Member of the Working Group on Hurricanes and Climate Change, The U.S. Climate Variability and Predictability Research Program (US CLIVAR), 2011 – 2015.

Participant of Climate Science Day on Capitol Hill, sponsored by the University Corporation for Atmospheric Research, February 10-11, 2015.

Early Career Rapporteur, The Climate Symposium 2014, Session on Clouds, Circulation and Climate Sensitivity, Darmstadt, Germany, October 13-17, 2014.

Student Mentor, 2014 Significant Opportunities in Atmospheric Research and Science (SOARS) Academy, Boulder, CO.

Lead-Convener, "Organized Convection Across Scales: Fundamentals and Phenomena," AGU Fall Meeting 2014, San Francisco, CA, USA, December 15-19, 2014.

Judge for 2015 Outstanding Student Paper Award at EGU General Assembly.

Judge for 2013 thru 2018 Outstanding Student Paper Award at AGU Fall Meeting.

Application reviewer for 2014 AAAS Science and Technology Policy Fellowship program.

Member of Lead Organizing Team, Dynamical Core Model Intercomparison Project (DCMIP) Summer School on Future-Generation Non-hydrostatic Weather and Climate Models, July 30-August 10, 2012, held at NCAR in Boulder, CO.

Co-Organizer of the 2009 Michigan Geophysical Union (MGU) Meeting (March 20, 2009), held at the University of Michigan in Ann Arbor, MI.

Co-Organizer of the 2008 Michigan Geophysical Union (MGU) Meeting (March 14, 2008), held at the University of Michigan in Ann Arbor, MI.

PROFESSIONAL SOCIETIES

Phi Kappa Phi

Phi Beta Kappa

Sigma Pi Sigma

Member of the American Meteorological Society (AMS)

Member of the American Geophysical Union (AGU)

Member of the European Geosciences Union (EGU)