

JONATHAN M. WINTER

CONTACT INFORMATION

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EDUCATION

Ph.D. **Massachusetts Institute of Technology, Cambridge, MA**
Civil and Environmental Engineering, 2010

M.S. **Massachusetts Institute of Technology, Cambridge, MA**
Civil and Environmental Engineering, 2006

B.S. **SUNY College of Environmental Science and Forestry, Syracuse, NY**
Environmental Resources Engineering, 2003

APPOINTMENTS

07/2020–Present	Dartmouth College, Department of Geography Associate Professor	Hanover, NH
07/2014–Present	Dartmouth College, Department of Earth Sciences Adjunct Assistant/Associate Professor	Hanover, NH
07/2023–06/2024	National Center for Atmospheric Research Visiting Scientist	Boulder, CO
07/2013–06/2020	Dartmouth College, Department of Geography Assistant Professor	Hanover, NH
03/2012–06/2013	Columbia University Earth Institute Associate Research Scientist	New York, NY
03/2010–02/2012	NASA Goddard Institute for Space Studies Postdoctoral Fellow, Advisor: Cynthia E. Rosenzweig	New York, NY

PEER-REVIEWED PUBLICATIONS COMPLETED (¶UNDERGRADUATE, *GRADUATE,
§POSTDOCTORAL ADVISEE; **BOLD** INDICATES SENIOR AUTHORSHIP)

52. C.S. Lesk[§], J.M. Winter, and J.S. Mankin, 2025: Projected runoff declines from plant physiological effects on precipitation. *Nature Water*, 3, 167–177.

51. L.E. Price[§], **J.M. Winter**, J.D.T. Savage*, J.L. Cantoni, D.W. Cozens, M.A. Linske, S.C. Williams, G.M. Dill, A.M. Gardner, S.P. Elias, T.F. Rounselle Jr., R.P. Smith Jr., M.W. Palace, C. Herrick, M.A. Prusinski, P. Casey, E.M. Doncaster, D.I. Wallace, and X. Shi, 2024: Spatial and temporal distribution of *Ixodes scapularis* and tick-borne pathogens across the northeastern United States. *Parasites and Vectors*, 17, 481.
50. N. Teale[§] and **J.M. Winter**, 2024: The Relationship between Extreme Precipitation and Damaging Floods in the Northeastern United States. *Journal of Applied Meteorology and Climatology*, 63, 1035–1047.
49. C.F. Cockburn*, **J.M. Winter**, E.C. Osterberg, and F.J. Magilligan, 2023: Drivers of future streamflow changes in watersheds across the Northeastern United States. *Journal of the American Water Resources Association*, 59, 894–912.
48. C. Picard[¶], **J.M. Winter**, C.F. Cockburn*, J. Hanrahan, P.J. Clemins, and B. Beckage, 2023: Twenty-first century increases in total and extreme precipitation across the Northeastern United States. *Climatic Change*, 176, 72.
47. T.F. Partridge*, **J.M. Winter**, A.D. Kendall, B. Basso, L. Pei, and D.W. Hyndman, 2023: Irrigation benefits outweigh costs in more US croplands by mid-century. *Communications Earth & Environment*, 4, 274.
46. M. Holthuijzen, B. Beckage, P.J. Clemins, D. Higdon, and J.M. Winter, 2022: Robust bias-correction of precipitation extremes using a novel hybrid empirical quantile mapping method: Advantages of a linear correction for extremes. *Theoretical and Applied Climatology*, 149, 863–882.
45. A. Zia, A.W. Schroth, J.S. Hecht, P. Isles, P.J. Clemins, S. Turnbull, P. Bitterman, Y. Tsai, I.N. Mohammed, G. Bucini, E.M.B. Doran, C. Koliba, A. Bombles, B. Beckage, J.M. Winter, E.C. Adair, D.M. Rizzo, W. Gibson, and G. Pinder, 2022: Climate change-legacy phosphorus synergy hinders lake response to aggressive water policy targets, *Earth's Future*, 10, e2021EF002234.
44. J.S. Hecht, A. Zia, P.J. Clemins, A.W. Schroth, J.M. Winter, P.D. Oikonomou, and D.M. Rizzo, 2022: Modeling the sensitivity of cyanobacteria blooms to projected changes in precipitation and temperature variability, *Science of the Total Environment*, 812, 151586.
43. J.R. Lopez[§], **J.M. Winter**, J. Elliott, A.C. Ruane, C. Porter, G. Hoogenboom, M. Anderson, and C. Hain, 2022: Sustainable use of groundwater may dramatically reduce maize, soy, and wheat production. *Earth's Future*, 10, e2021EF002018.
42. E.D. Coffel[§], C. Lesk, J.M. Winter, E.C. Osterberg, and J.S. Mankin, 2022: Crop-climate feedbacks boost U.S. maize and soy yields, *Environmental Research Letters*, 17, 024012.
41. V. Ratti, J.M. Winter, and D.I. Wallace, 2021: Dilution and amplification effects in Lyme disease: Modeling the effects of incompetent hosts on *Borrelia burgdorferi* transmission. *Ticks and Tick-borne Diseases*, 12, 101724.
40. H. Huang*, C.M. Patricola, **J.M. Winter**, E.C. Osterberg, and J.S. Mankin, 2021: Rise in Northeast US extreme precipitation caused by Atlantic variability and climate change. *Weather and Climate Extremes*, 33, 100351.
39. J. Hanrahan, J. Langlois, L. Cornell, H. Huang*, J.M. Winter, P.J. Clemins, B. Beckage, and C.L. Bruyère, 2021: Examining the Impacts of Great Lakes Temperature Perturbations on Simulated

- Precipitation in the Northeastern United States, *Journal of Applied Meteorology and Climatology*, 60, 935-949.
38. C. Lesk, E.D. Coffel, J.M. Winter, D. Ray, J. Zscheischler, S.I. Seneviratne, and R.M. Horton, 2021: Stronger temperature–moisture couplings exacerbate the impact of climate warming on global crop yields, *Nature Food*, 2, 683-691.
 37. M. Holthuijzen, B. Beckage, P.J. Clemins, D. Higdon, and J.M. Winter, 2021: Constructing high-resolution, bias-corrected climate products: a comparison of methods. *Journal of Applied Meteorology and Climatology*, 60, 455-475.
 36. M.J. Webb[¶], **J.M. Winter**, S.A. Spera[§], J.W. Chipman, and E.C. Osterberg, 2021: Water, agriculture, and climate dynamics in central Chile’s Aconcagua River Basin. *Physical Geography*, 42, 395-415.
 35. T.F. Partridge*, **J.M. Winter**, A.D. Kendall, and D.W. Hyndman, 2021: Cross-scale evaluation of dynamic crop growth in WRF and Noah-MP-Crop. *Agricultural and Forest Meteorology*, 296, 108217.
 34. B. Beckage, K. Lacasse, J.M. Winter, L.J. Gross, N. Fefferman, F.M. Hoffman, S.S. Metcalf, T. Franck, E. Carr, A. Zia, and A. Kinzig, 2020: The Earth has humans, so why don’t our climate models? *Climatic Change*, 163, 181-188.
 33. **J.M. Winter**, T.F. Partridge*, D. Wallace, J.W. Chipman, M.P. Ayres, E.C. Osterberg, and E.R. Dekker[¶], 2020: Modeling the Sensitivity of Blacklegged Ticks (*Ixodes scapularis*) to Temperature and Land Cover in the Northeastern United States. *Journal of Medical Entomology*, 58, 416-427.
 32. A. Davitt, J.M. Winter, and K. McDonald, 2020: Integrated crop growth and radiometric modeling to support Sentinel SAR observations of agricultural fields. *Journal of Applied Remote Sensing*, 14, 044508.
 31. S.A. Spera[§], **J.M. Winter**, and T.F. Partridge*, 2020: Brazilian maize yields negatively affected by climate after land clearing. *Nature Sustainability*, 3, 845–852.
 30. **J.M. Winter**, H. Huang*, E.C. Osterberg, and J.S. Mankin, 2020: Anthropogenic Impacts on the Exceptional Precipitation of 2018 in the Mid-Atlantic United States. *Bulletin of the American Meteorological Society*, 101, S5–S10.
 29. H. Huang*, **J.M. Winter**, E.C. Osterberg, J. Hanrahan, C.L. Bruyère, P.J. Clemins, and B. Beckage, 2020: Simulating precipitation and temperature in the Lake Champlain Basin using a regional climate model: limitations and uncertainties. *Climate Dynamics*, 54, 69–84.
 28. T.F. Partridge*, **J.M. Winter**, L. Liu, A.D. Kendall, B. Basso, and D.W. Hyndman, 2019: Mid-20th century warming hole boosts US maize yields. *Environmental Research Letters*, 14, 114008.
 27. D. Wallace, V. Ratti, A. Kodali, J.M. Winter, M.P. Ayres, J.W. Chipman, C.F. Aoki, E.C. Osterberg, C. Silvanic, T.F. Partridge*, and M.J. Webb[¶], 2019: Effect of Rising Temperature on Lyme Disease: *Ixodes scapularis* Population Dynamics and *Borrelia burgdorferi* Transmission and Prevalence. *Canadian Journal of Infectious Diseases and Medical Microbiology*, 9817930, 1-15.
 26. E.D. Coffel[§], R.M. Horton, J.M. Winter, and J.S. Mankin, 2019: Nonlinear increases in extreme

temperatures paradoxically dampen increases in extreme humid-heat. *Environmental Research Letters*, 14, 084003.

25. P.J. Clemins, G. Bucini, J.M. Winter, B. Beckage, E. Towler, A. Betts, R. Cummings, and H.C. Queiroz, 2019: An Analog Approach for Weather Estimation Using Climate Change Projections and Reanalysis Data. *Journal of Applied Meteorology and Climatology*, 58, 1763-1777.

24. **J.M. Winter**, F.L. Bowen[¶], T.F. Partridge*, and J.W. Chipman, 2019: Future Extreme Event Risk in the Rural Northeastern United States. *Annals of the American Association of Geographers*, 109, 1110-1130.

23. S.A. Spera[§], **J.M. Winter**, and J.W. Chipman, 2018: Evaluation of Agricultural Land Cover Representations on Regional Climate Model Simulations in the Brazilian Cerrado. *Journal of Geophysical Research - Atmospheres*, 123, 5163-5176.

22. H. Huang*, **J.M. Winter**, and E.C. Osterberg, 2018: Mechanisms of Abrupt Extreme Precipitation Change Over the Northeastern United States. *Journal of Geophysical Research - Atmospheres*, 123, 7179-7192.

21. V.K. Mehta, C. Young, S.R. Bresney, D.S. Spivak, and J.M. Winter, 2018: How can we support the development of robust groundwater sustainability plans? *California Agriculture*, 72, 54-64.

20. T.F. Partridge*, **J.M. Winter**, E.C. Osterberg, D.W. Hyndman, A.D. Kendall, and F.J. Magilligan, 2018: Spatially Distinct Seasonal Patterns and Forcings of the U.S. Warming Hole. *Geophysical Research Letters*, 45, 2055-2063.

19. B. Beckage, L.J. Gross, K. Lacasse, E. Carr, S.S. Metcalf, J.M. Winter, P.D. Howe, N. Fefferman, A. Zia, T. Frank, A. Kinzig, and F.M. Hoffman, 2018: Linking models of human behaviour and climate alters projected climate change. *Nature Climate Change*, 8, 79-84.

18. R.E. Alter[§], H.C. Douglas, **J.M. Winter**, and E.A.B. Eltahir, 2018: Twentieth Century Regional Climate Change During the Summer in the Central United States Attributed to Agricultural Intensification. *Geophysical Research Letters*, 45, 1586-1594.

17. S. McDermid and J.M. Winter, 2017: Anthropogenic forcings on the climate of the Aral Sea: A regional modeling perspective. *Anthropocene*, 20, 48-60.

16. **J.M. Winter**, C.A. Young, V.K. Mehta, A.C. Ruane, M. Azarderakhsh, A. Davitt, K. McDonald, V.R. Haden, and C. Rosenzweig, 2017: Integrating water supply constraints into irrigated agricultural simulations of California. *Environmental Modelling and Software*, 96, 335-346.

15. H. Huang*, **J.M. Winter**, E.C. Osterberg, R.M. Horton, and B. Beckage, 2017: Total and Extreme Precipitation Changes over the Northeastern United States. *Journal of Hydrometeorology*, 18, 1783-1798.

14. **J.M. Winter**, J.R. Lopez[§], A.C. Ruane, C.A. Young, B.R. Scanlon, and C. Rosenzweig, 2017: Representing water scarcity in future agricultural assessments. *Anthropocene*, 18, 15-26.

13. J.R. Lopez[§], **J.M. Winter**, J. Elliott, A.C. Ruane, C. Porter, and G. Hoogenboom, 2017: Integrating growth stage deficit irrigation into a process based crop model. *Agricultural and Forest Meteorology*, 243, 84-92.

12. A. Zia, A. Bombliès, A.W. Schroth, C. Koliba, P.D.F. Isles, Y. Tsai, I.N. Mohammed, G. Bucini, P.J. Clemins, S. Turnbull, M. Rodgers, A. Hamed, B. Beckage, J.M. Winter, C. Adair,

- G.L. Galford, D. Rizzo, and J. Van Houten, 2016: Coupled impacts of climate and land use change across a river-lake continuum: insights from an integrated assessment model of Lake Champlain's Missisquoi Basin, 2000-2040. *Environmental Research Letters*, 11, 114026.
11. **J.M. Winter**, B. Beckage, G. Bucini, R.M. Horton, and P.J. Clemins, 2016: Development and Evaluation of High-Resolution Climate Simulations over the Mountainous Northeastern United States. *Journal of Hydrometeorology*, 17, 881-896.
 10. R.M. Horton, E.D. Coffel, J.M. Winter, and D.A. Bader, 2015: Projected changes in extreme temperature events based on the NARCCAP model suite. *Geophysical Research Letters*, 42, 7722-7731.
 9. **J.M. Winter**, P.J.F. Yeh, X. Fu, and E.A.B. Eltahir, 2015: Uncertainty in modeled and observed climate change impacts on American Midwest hydrology. *Water Resources Research*, 51, 3635-3646.
 8. A.C. Ruane, J.M. Winter, S. McDermid, and N.I. Hudson, 2015: "AgMIP Climate Data and Scenarios for Integrated Assessment", in *Handbook of Climate Change and Agroecosystems: The Agricultural Model Intercomparison and Improvement Project (AgMIP) Integrated Crop and Economic Assessments*. C. Rosenzweig and D. Hillel, Eds., Imperial College Press.
 7. J. Guilbert, B. Beckage, **J.M. Winter**, R.M. Horton, T. Perkins, and A. Bombliès, 2014: Impacts of Projected Climate Change over the Lake Champlain Basin in Vermont. *Journal of Applied Meteorology and Climatology*, 53, 1861-1875.
 6. C. Rosenzweig, J.W. Jones, J.L. Hatfield, A.C. Ruane, K.J. Boote, P. Thorburn, J.M. Antle, G.C. Nelson, C. Porter, S. Janssen, S. Asseng, B. Basso, F. Ewert, D. Wallach, G. Baigorria, and J.M. Winter, 2013: The Agricultural Model Intercomparison and Improvement Project (AgMIP): Protocols and pilot studies. *Agricultural and Forest Meteorology*, 170, 166-182.
 5. J.M. Winter and E.A.B. Eltahir, 2012: Modeling the hydroclimatology of the midwestern United States. Part 1: current climate. *Climate Dynamics*, 38, 573-593.
 4. J.M. Winter and E.A.B. Eltahir, 2012: Modeling the hydroclimatology of the midwestern United States. Part 2: future climate. *Climate Dynamics*, 38, 595-611.
 3. J.M. Winter and E.A.B. Eltahir, 2010: The Sensitivity of Latent Heat Flux to Changes in the Radiative Forcing: A Framework for Comparing Models and Observations. *Journal of Climate*, 23, 2345-2356.
 2. J.M. Winter, J.S. Pal, and E.A.B. Eltahir, 2009: Coupling of Integrated Biosphere Simulator to Regional Climate Model Version 3. *Journal of Climate*, 22, 2743-2757.
 1. J.S. Pal, F. Giorgi, X. Bi, N. Elguindi, F. Solmon, X. Gao, S.A. Rauscher, R. Francisco, A. Zakey, J.M. Winter, M. Ashfaq, F.S. Syed, J.L. Bell, N.S. Diffenbaugh, J. Karmacharya, A. Konaré, D. Martinez, R.P. Da Rocha, L.C. Sloan, and A.L. Steiner, 2007: Regional Climate Modeling for the Developing World: The ICTP RegCM3 and RegCNET. *Bulletin of the American Meteorological Society*, 88, 1395-1409.

FUNDING

09/2025–08/2027 Collaborative Research: GCR: Growing REstorative Agroenergy Landscapes (REAL)

	NSF OIA 2524055, Co-Principal Investigator, Months/Year: 0.5
09/2024–08/2027	Planning: CHIRRP: Strengthening Community Resilience to Flood Hazards in Rural NH and VT NSF 2435038, Co-Principal Investigator, Months/Year: 0.03
07/2026–06/2027	Dart-TEMPS: Tick-borne Emerging Microbial Pathogen Surveillance on Dartmouth Lands Dartmouth as Living Lab Grant, Co-Principal Investigator, Internal Funding: \$30,000
01/2024–12/2026	DSFAS: Integrating AI applications and big data to evaluate underutilized irrigated row crop production zones (IrrigAIIt) USDA-NIFA-AFRI-009003, Co-Principal Investigator, Months/Year: 0.5
05/2025–09/2026	Massachusetts State of the Climate Science Report Massachusetts Executive Office of Energy and Environmental Affairs, Principal Investigator, Months/Year: 0.5
06/2025–05/2025	WildfireOFF: Wildfire-Oriented Forecasting Framework for Power Grid Risk Assessment and Mitigation Irving Institute for Energy and Society Faculty Seed Grant, Co-Principal Investigator
09/2020–08/2025	RII Track-2 FEC: Leveraging Big Data to Improve Prediction of Tick-Borne Disease Patterns and Dynamics NSF OIA 2019609, Co-Investigator, Months/Year: 1
06/2019–05/2025	CAREER: Predicting Climate Impacts on Irrigated Agriculture in the United States through Integrated Modeling and Remote Sensing NSF BCS 1848018, Principal Investigator, Months/Year: 1
04/2024–10/2024	Dartmouth Workshop on the Home Energy Transition and the Heat Pump Neukom Institute, Rockefeller Center, and Irving Institute, Principal Investigator
07/2018–06/2023	INFEWS/T1: Developing Pathways Toward Sustainable Irrigation across the United States Using Process-based Systems Models (SIRUS) NSF/USDA NIFA 2018-67003-27406, Co-Principal Investigator, Months/Year: 0.5
07/2016–06/2021	EPSCoR RII Track-1: Lake Champlain Basin Resilience to Extreme Events NSF OIA 1556770, Co-Principal Investigator, Months/Year: 1.5
03/2015–02/2020	Developing and Promoting Water-, Nutrient-, and Climate-Smart Technologies to Help Agricultural Systems Adapt to Climate and Societal Changes USDA NIFA 2015-68007-23133, Co-Principal Investigator, Months/Year: 1
06/2018–12/2019	Evaluating the Sustainability of Irrigated Agricultural Production in the United States Rockefeller Faculty Research Grant, Principal Investigator

09/2016–12/2018	Expansion of Lyme Disease in the Northeast: Climate, Land Use, and Ticks Neukom CompX Faculty Grant, Principal Investigator
06/2012–09/2016	Adaptation Planning for Climate Change Impacts using Advanced Decision Support and Remote Sensing: Irrigated Agriculture in California’s Central Valley NASA NNH11ZDA001N-WATER, Co-Principal Investigator, Months/Year: 1
12/2014–08/2016	Research on Adaptation to Climate Change in the Lake Champlain Basin: New Understanding through Complex Systems Modeling NSF EPS 1101317, Co-Principal Investigator, Months/Year: 2.5
01/2013–06/2014	The Agricultural Productivity Indicator Analysis System (APIAS): Tracking the Agricultural Impacts of Climate Variability and Change NASA NNH12ZDA001N-INCA, Participant, Months/Year: 0.5
06/2012–05/2014	Columbia University Support to Vermont EPSCoR - Building Statistical and Dynamical Downscaling Capacity at the University of Vermont University of Vermont, Principal Investigator, Months/Year: 1.5
02/2013–04/2013	AgMIP-ERS Workshop: Integrating Water Scarcity into Future Agricultural Assessments USDA-ERS, Co-Principal Investigator
03/2012–02/2013	A Proposal to the Department of the Interior to Establish the Northeast Climate Science Center (NECSC) DOI G11AS20014, Participant, Months/Year: 10
03/2010–02/2012	Climate Change and Agriculture: Predicting the Impacts of Precipitation and Temperature Extremes NASA Postdoctoral Program, Principal Investigator, Months/Year: 12

TEACHING

GEOG 9/19.01	Climate Change and the Future of Agriculture WI14, WI15, WI16, WI17, WI18, WI19, WI20, WI21, WI22, WI23, SU24, WI26 Mid-level course on the global agricultural system under changing climate. Integrates the use of a simple statistical crop production model to explore climate impacts on yields. Average enrollment: 35
GEOG 5/15.01	Global Climate Change SP14, SP15, SP16, SP18, SP19, SP20, SP21, WI22, SU24, SP25, SP26 Mid-level course surveying the physical science of global climate change. Incorporates analysis of global climate model data and greenhouse gas emissions reduction simulations to assess Earth’s changing climate and potential adaptation and mitigation strategies. Average enrollment: 35
GEOG 7.14	Thirsty Planet WI16, WI18, WI19, SP20, SP21, WI23, SP25 First-year writing seminar that introduces water scarcity and management through the reading of scientific and popular press, and writing of a review

article suitable for publication in a scientific journal and an opinion editorial.
Average enrollment: 16

GEOG 61.01	Hydroclimatology	WI26
	Graduate and upper-division undergraduate course on land-atmosphere interactions. Combines theory of water and energy budgets with computational hydrologic modeling. Cross-list: EARS 61.01/EEES 161/EARS 161. Average enrollment: 25	
GEOG 36.01	The Czech Republic in the New Europe	SP22
	Department of Geography study abroad course that explores the social geography, history, cultural landscape, and physical environment of Prague and the Czech Republic. Average enrollment: 15	
GEOG 37.01	Social and Physical Landscapes of the Czech Republic	SP22
	Department of Geography study abroad course composed of excursions that provide a field-based understanding of Prague and the Czech Republic. Average enrollment: 15	
GEOG 86	Independent Study in the Czech Republic	SP22
	Department of Geography study abroad course that integrates knowledge of Prague and the Czech Republic with the collection and analysis of data. Average enrollment: 15	

RESEARCH ADVISING

Undergraduate	Arshi Mahajan	06/2025–Present
	Climate Change Effects on New England Health EE Just Undergraduate Fellowship Program	
	Isabel Prado-Tucker	01/2025–Present
	Changes in Extreme Precipitation over the Northeastern US WISP Intern, Research Assistant	
	Jacqueline Wright	09/2025–06/2026
	Substations in the Digital Economy: Fiscal and Political Geographies of Data Centers in Georgia Senior Honors Thesis Committee	
	Madeline Wolfe	01/2022–06/2025
	Predicting Climate Impacts on US Irrigated Agriculture; Agricultural Climate Change Adaptation Strategies across New England WISP Intern, Research Assistant, Senior Honors Thesis Advisor	
	Angelica Angelica	01/2025–06/2025
	Mapping Vermont Flood Erosion and Damage WISP Intern	
	Lily Ding	03/2021–05/2024
	Predicting Climate Impacts on US Irrigated Agriculture WISP Intern, Research Assistant	

Justine Brown	01/2023–08/2023
Assessing Climate Impacts on Northeast Agriculture WISP Intern	
Christopher Picard	06/2020–06/2023
Climate Change Impacts on Northeast Extreme Precipitation UGAR Leave Term Grant, Research Assistant	
Mariana Peñaloza Morales	09/2021–06/2022
Weather in(g) the City: Countertopographies of Abolition in the Wake of Catastrophe Senior Honors Thesis Committee	
Sophie Inkster	03/2021–06/2021
Predicting Climate Impacts on US Irrigated Agriculture Research Assistant	
Rebekah Ruff	03/2021–09/2021
Explaining the Spread of Lyme Disease across the Northeastern US WISP Intern	
Abigail Chamberlin	06/2019–12/2020
Climate Change Impacts on Midwestern US Agriculture Research Assistant, Junior Research Scholar	
Sonia Eckstein	11/2019–03/2020
Predicting Climate Impacts on US Irrigated Agriculture Research Assistant, WISP Intern	
Madeline Kroot	09/2018–06/2019
Trees, Towers, and Energy Transitions: A Political Ecology of the Northern Pass Project Senior Honors Thesis Committee	
Mariana Webb	09/2016–06/2018
Climate, Glaciers, and Agriculture in Chile's Aconcagua River Basin; Climate Effects on Lyme Disease Expansion in New England Presidential Scholar, Senior Honors Thesis Advisor	
Eliza Dekker	06/2017–06/2018
Climate Effects on Lyme Disease Expansion in New England Junior Research Scholar	
Fiona Bowen	01/2015–12/2017
CMIP5 Projections of Climate Change over the Northeastern US WISP Intern, Sophomore Research Scholar, Presidential Scholar	
Jessica Jones	07/2016–12/2017
Climate Change Impacts on Midwestern US Agriculture Research Assistant	
Andrew Crutchfield	07/2016–06/2017
Climate Change Impacts on Midwestern US Agriculture	

Research Assistant

Eliza Hoffman 07/2016–03/2017
Improving Crop Model Simulations of Plant Water Use
Research Assistant

Nathan Lin 09/2015–12/2016
Climate Change Impacts on Agriculture over Central America
Research Assistant

Evan Curhan 09/2013–06/2014
CMIP5 Projections of Climate Change over the Northeastern US
Research Assistant

Graduate

Chunmeng Wang, Expected Ph.D. 2029 09/2024–Present
Advisor, Interactions between US Climate and Irrigated Agriculture

Joseph Savage, Expected Ph.D. 2027 09/2022–Present
Advisor, Climate and Land Cover Impacts on Lyme Disease in New England

Janelle Wargo, M.S. 2025 09/2023–08/2025
Advisor, Historical Drought in the Northeastern US

Charlotte Cockburn, M.S. 2021 09/2019–09/2021
Advisor, Climate Change and Streamflow in the Northeastern US

Trevor Partridge, Ph.D. 2021 09/2016–12/2021
Advisor, Climate Impacts on Central US Agriculture

Huanping Huang, Ph.D. 2019 09/2014–08/2019
Advisor, Precipitation Changes in the Northeastern US

Stella Potemkin, Expected Ph.D. 2030 04/2026–Present
Committee, Aridity Trends across the Continental United States

Madeleine Burns, Expected Ph.D. 2030 04/2026–Present
Committee, Climate-Snowpack Interactions over the American West

Mikala L’Hote, Expected Ph.D. 2030 04/2026–Present
Committee, Effects of Winter Conditions on Water Quality in New England

Maggie O’Shea, Expected Ph.D. 2028 04/2024–Present
Committee, Data Poverty Effects on Estimating Climate Change Damages

Flora Perlmutter, Expected Ph.D. 2027 04/2023–Present
Committee, Sea Surface Temperature Effects on River Basin Hydroclimate

Alex Gottlieb, Ph.D. 2024 04/2020–08/2024
Committee, Changing Snowpack and Water Resources in the American West

Chris Callahan, Ph.D. 2023 04/2019–08/2023
Committee, Attribution and Projection of Uncertain Climate Impacts

Catherine Nikiel, Ph.D. 2021 09/2018–12/2021
Committee, Massachusetts Institute of Technology

	Colin Raymond , Ph.D. 2019 Committee, Columbia University	09/2017–06/2019
Postdoctoral	Corey Lesk Evaluating the Response of Vegetation to Climate Change, Neukom Fellow	09/2022–08/2025
	Lucas Price Explaining the Spread of Lyme Disease across the Northeastern US	06/2022–09/2023
	Natalie Teale Climate Change Impacts on Northeastern US Flooding, Society of Fellows	09/2021–08/2023
	Ethan Coffel Extreme Event Impacts on Society, Neukom Fellow	09/2018–09/2020
	Stephanie Spera Land Use Effects on Climate over Brazil, Neukom Fellow	09/2016–12/2018
	Jose Lopez Water Supply Constraints on US Irrigated Agriculture	01/2016–05/2018
	Ross Alter Impacts of Agriculture on Midwestern US Climate	09/2014–08/2016

HONORS AND AWARDS

2019	NSF CAREER
2019	AAG John Russell Mather Paper of the Year
2017	UN Climate Change Conference Observer Delegation
2010–2012	NASA Postdoctoral Program Fellowship
2005	Martin Family Fellowship
2004, 2005	International Centre for Theoretical Physics Fellowship
2003–2004	Linden Earth Systems Fellowship
2003	SUNY-ESF Valedictorian, Class of 2003

SERVICE AND OUTREACH

Article Reviewer	<i>Nature Geoscience, Earth Interactions, Proceedings of the National Academy of Sciences, Weather and Climate Extremes, Science of the Total Environment, Journal of Climate, Land, Frontiers in Water, Environmental Research Letters, Bulletin of the American Meteorological Society, Hydrological Processes, Geophysical Research Letters, Nature Communications, Anthropocene, Nature, Physical Geography, Advances in Atmospheric Sciences, Climate Dynamics, Climatic Change, Hydrology and Earth System Sciences, Journal of Geophysical Research: Atmospheres, Journal of Hydrometeorology, Meteorology and Atmospheric Physics, Journal of Hydrology: Regional Studies</i>
Session Convener	American Geophysical Union Fall Meeting: 16 December 2025, 11 December 2024, 12 December 2023, 14 December 2021, 15 December 2021, 15 December 2020, 11 December 2019, 12 December 2018, 13 December 2017, 16 December 2016, 14 December 2015, 19 December 2014, 16 December 2014, 12 December

	2013, 11 December 2013, 4 December 2012, 5 December 2011, 15 December 2010; American Association of Geographers Annual Meeting: 21 March 2026, 26 March 2025, 19 April 2024, 25 March 2023, 25 February 2022, 07 April 2021, 03 April 2019, 10 April 2018, 07 April 2017
Proposal Reviewer	NSF CAREER: 21–23 January 2026; NASA Modeling, Analysis, and Prediction: 18–19 November 2024; NSF Human-Environment and Geographical Sciences Program: 30 October 2024, 26–27 September 2019, 12 April 2017, 29 October 2015; NSF Hydrological Sciences: 15 August 2023, 07 January 2018; NSF Environmental Sustainability: 18 April 2023, 22 October 2020, 2 April 2018; NSF Ecosystem Science: 11 October 2020; NASA New Investigator Program Terrestrial: 12–13 February 2014
Society Member	American Association of Geographers, American Geophysical Union, American Meteorological Society, Ecological Society of America, American Society of Agronomy, American Association for the Advancement of Science
Dartmouth	Irving Seed Grant Review Board (2026–Present) Committee on Instruction (2025–Present) CUAHSI Representative (2025–Present) Direct Climate Change Science Minor (2020–Present) Irving Institute for Energy and Society Faculty Affiliate (2022–Present) Scholarly Innovation and Advancement Awards Committee (2025–Present) Society of Fellows Faculty Affiliate (2021–2023) Committee on Standards (2021–2023) Led development of Climate Change Science Minor (2018–2020) Council on Computing (2016–2019) Participated in Irving Institute for Energy and Society implementation discussions (2015–2016) Contributed to Dartmouth’s UCAR membership application (2014–2015)
Geography	Chair EEES Admissions Committee (2024–Present) Chair Geography Website Committee (2021–Present) Chair Geography Foreign Studies Program Committee (2023–2024) Chair Geography Curriculum Committee (2021–2023) Chair Global Environmental Change Assistant Professor search (2022–2023) Co-led Geography Major redesign (2018–2020) Co-organized departmental seminar (2017–2018) Global Change Assistant Professor search committee (2016–2017) Co-led Visiting Assistant Professor search (2015–2016) Physical Geography Postdoctoral Scholar search committee (2014–2015)
Speaker/Lecturer	Montshire Museum of Science: 19 December 2024 VINS Teacher Continuing Education Workshop: 13 August 2024 Lebanon High School: 3 April 2023 Science Cafe NH: 20 October 2021 Undergraduate Admissions Climate and Energy Summer Series: 14 July 2020 Geisel Physicians for Human Rights Conference: 12 January 2019 Office of Sustainability - A Deeper Shade of Green: 8 February 2018

Dartmouth Political Times Climate Change Panel: 1 November 2017
 Salt Hill Science Pub: 26 October 2017
 Osher/Montshire Climate Science and Implications Course: 16 October 2017
 Big Green Dreams Renewable Energy Forum: 15 April 2016
 New Hampshire Association of Conservation Districts: 1 December 2014
 Institute for Lifelong Education at Dartmouth: 9 April 2014
 Dartmouth Council on Climate Change: 14 October 2014
 Upper Valley Sierra Club: 12 November 2013
 Climate Science Day Representative: 27 February 2013

Press

Bob Vila: [15 June 2026](#); NHPR: [29 May 2026](#); NHPR: [16 April 2026](#); *Valley News*: [4 November 2025](#); *Concord Monitor*: [18 October 2025](#); CNN: [19 August 2025](#); NPR All Things Considered: [27 August 2024](#); New England Public Media: [22 August 2024](#); *The Boston Globe*: [16 August 2024](#); *The New York Times*: [31 July 2024](#); *The Wall Street Journal*: [9 January 2024](#); *VT Digger*: [22 December 2023](#); *New Scientist*: [7 September 2023](#); *Associated Press*: [23 August 2023](#); *ZME Science*: [16 August 2023](#); *WMUR*: [16 August 2023](#); *WBUR*: [02 August 2023](#); *Vermont Public*: [20 July 2023](#); *USA Today*: [12 July 2023](#); *The Boston Globe*: [11 July 2023](#); *Valley News*: [10 July 2023](#); *The Boston Globe*: [9 June 2023](#); *WMUR*: [23 May 2023](#); *Valley News*: [25 April 2023](#); *NHPR*: [24 April 2023](#); *Inverse*: [22 April 2023](#); *Christian Science Monitor*: [29 March 2023](#); *Inverse*: [18 February 2023](#); *National Geographic*: [23 August 2022](#); *WMUR*: [16 March 2022](#); *Moderen Farmer*: [15 February 2022](#); *The Guardian*: [03 January 2022](#); *Globe Magazine*: [11 November 2021](#); *Valley News: Science Cafe NH*: [21 October 2021](#); *NHPR*: [11 August 2021](#); [08 August 2021](#); *NHPR*: [06 August 2021](#); *Mongabay*: [15 July 2020](#); *Forbes*: [30 June 2020](#); *Aljazeera*: [29 June 2020](#); *Seed Today*: [15 November 2019](#); *Climatewire*: [17 May 2019](#); *UNDRR PreventionWeb*: [15 May 2019](#); *NBC 5*: [18 September 2018](#); *VPR*: [16 August 2018](#); *Valley News*: [6 August 2018](#); *NHPR*: [2 August 2018](#); *The New York Times*: [16 March 2018](#); *WOJB*: [28 February 2018](#); *Forbes*: [20 February 2018](#); *Winnipeg Free Press*: [18 February 2018](#); *Science*: [16 February 2018](#); *Los Angeles Times*: [15 February 2018](#); *McClatchy*: [15 February 2018](#); *The Briefing Powered by Dartmouth*: [20 September 2017](#); *NHPR*: [7 September 2017](#); *The Briefing Powered by Dartmouth*: [24 July 2017](#); *The Times Argus*: [3 June 2017](#); *Valley News*: [21 June 2017](#); *Associated Press*: [21 June 2017](#); *NHPR*: [30 May 2017](#); *Concord Monitor*: [29 May 2017](#); *Union Leader*: [25 May 2017](#); *NECN*: [24 May 2017](#); *WUWM*: [19 May 2015](#)

PRESENTATIONS (¶UNDERGRADUATE, *GRADUATE, §POSTDOCTORAL ADVISEE; **BOLD** INDICATES SENIOR AUTHORSHIP)

125. **J.M. Winter**, C. Wang*, A.D. Kendall, and S. Smidt: Climate Change Increases the Reliance of U.S. Corn on Irrigation, American Association of Geographers Annual Meeting, San Fransisco, USA, 21 March 2026.
124. K.K. Stevens¶, E.C. Osterberg, C.A. Daniels, C.E. Renshaw, J.M. Winter, F.J. Magilligan, M.C. Palucis, G.P. Speidel, and J.R. Loos: Strengthening Community Resilience to Flood Hazards

- in New England. American Association of Geographers Annual Meeting, San Francisco, USA, 19 March 2026.
123. J.D.T. Savage*, **J.M. Winter**, and M.P. Ayres: Assessing the Impact of Climate and Land Cover on Northeast *Ixodes scapularis* Populations. American Geophysical Union Annual Meeting, New Orleans, USA, 18 December 2025.
 122. C. Wang*, **J.M. Winter**, A.D. Kendall, and S. Smidt: Climate Change Increases the Reliance of U.S. Corn on Irrigation. American Geophysical Union Annual Meeting, New Orleans, USA, 18 December 2025.
 121. **J.M. Winter**, J.L. Wargo*, E.C. Osterberg, and J.S. Mankin: Observed Decreases in Seasonal Drought across the Northeastern United States. American Geophysical Union Annual Meeting, New Orleans, USA, 17 December 2025.
 120. **J.M. Winter** (Invited): Environmental Change Across the Northeastern United States: Floods, Droughts, and Ticks (Oh My!). New York University Department of Environmental Studies Seminar Series, New York, USA, 15 October 2025.
 119. Madeline Wolfe[¶], **J.M. Winter**, and S. Freidberg: Communicating climate change impacts and adaptation strategies for central United States agriculture. American Association of Geographers Annual Meeting, Detroit, USA, 28 March 2025.
 118. **J.M. Winter**, J.L. Wargo*, and E.C. Osterberg: Decreasing Drought in the Northeastern United States 1901-Present. American Association of Geographers Annual Meeting, Detroit, USA, 26 March 2025.
 117. N.G. Teale[§] and **J.M. Winter**: Frequency of damaging flooding in the Northeastern US at the end of the 21st century. American Association of Geographers Annual Meeting, Detroit, USA, 26 March 2025.
 116. **J.M. Winter** (Invited): Mechanisms and Impacts of Increasing Extreme Precipitation Across the Northeastern United States. Syracuse University Department of Geography and the Environment Colloquium Series, Syracuse, USA, 7 February 2025.
 115. **J.M. Winter**, Madeline Wolfe[¶], and L.L. Ding[¶]: Communicating climate change impacts and adaptation strategies for central United States agriculture. American Geophysical Union Annual Meeting, Washington DC, 11 December 2024.
 114. J.L. Wargo*, E.C. Osterberg, and **J.M. Winter**: Investigating Changes in Drought Across the Northeastern United States Since 1901. American Geophysical Union Annual Meeting, Washington DC, 11 December 2024.
 113. N.G. Teale[§] and **J.M. Winter**: Future Risk of Damaging Flood Events across the Northeastern United States. American Geophysical Union Annual Meeting, Washington DC, 9 December 2024.
 112. **J.M. Winter** (Invited): Climate-Water-Agriculture Interactions over the Central United States. NCAR Land Surface Modeling Group Seminar, Boulder, USA, 28 May 2024.
 111. **J.M. Winter** and C. Picard[¶]: Twenty-first century increases in total and extreme precipitation across the Northeastern United States. American Association of Geographers Annual Meeting, Virtual, 19 April 2024.

110. N.G. Teale[§] and **J.M. Winter**: Projected impacts of climate change on destructive flood frequency in the Northeastern US. American Association of Geographers Annual Meeting, Virtual, 19 April 2024.
109. C.S. Lesk[§], J.M. Winter, and J.S. Mankin: Projected runoff declines from plant physiological effects on precipitation. European Geophysical Union General Assembly, Vienna, Austria, 19 April 2024.
108. **J.M. Winter** (Invited): Historical and Future Changes in Extreme Precipitation Across the Northeastern United States. NCAR Hydrometeorological Applications Program Seminar, Boulder, USA, 18 April 2024.
107. **J.M. Winter** (Invited): Climate-Water-Agriculture Interactions over the Central United States. Colorado State University Agricultural Sustainability and Climate Impacts Lab, Fort Collins, USA, 10 April 2024.
106. J.D.T. Savage*, **J.M. Winter**, and L.E. Price[§]: Modeling the Spread of Lyme Disease in Response to Climate and Land Cover in the Northeastern United States. TickBase Annual Meeting, Burlington, USA, 18 March 2024.
105. **J.M. Winter**, J.D.T. Savage*, and L.E. Price[§]: Simulating the Historical Spread of Lyme Disease across the Northeastern United States. American Geophysical Union Fall Meeting, San Francisco, USA, 12 December 2023.
104. N.G. Teale[§] and **J.M. Winter**: Combining extreme precipitation and antecedent wetness metrics to improve assessments of damaging flooding in the Northeastern United States. American Geophysical Union Fall Meeting, San Francisco, USA, 11 December 2023.
103. **J.M. Winter** (Invited): Mechanisms and Impacts of Increasing Extreme Precipitation Across the Northeastern United States. Northeastern University Marine and Environmental Sciences Department Seminar Series, Nahant, USA, 23 October 2023.
102. L.E. Price[§], **J.M. Winter**, J. Cantoni, M. Linske, S. Williams, G. Dill, A. Gardner, S. Elias, T. Rounsiville Jr., R. Smith, M. Prusinski, J.D.T. Savage*, D. Wallace, X. Shi, and M. Li: Spatial and Temporal Distribution of Black-legged Ticks and Tick-borne Pathogens Across the Northeastern United States. Northeast Association of Fish and Wildlife Agencies Annual Meeting, Hershey, USA, 2 May 2023.
101. J.D.T. Savage*, **J.M. Winter**, and L.E. Price[§]: Modeling the Historical and Future spread of Lyme Disease in Response to Climate and Land Cover in the Northeastern United States. Northeast Association of Fish and Wildlife Agencies Annual Meeting, Hershey, USA, 2 May 2023.
100. J.D.T. Savage*, **J.M. Winter**, and L.E. Price[§]: A Gridded Model of Lyme Disease in Response to Climate and Land Cover in the Northeastern United States. Ecological Society of America Annual Meeting, Portland, USA, 7 August 2023.
99. Madeline Wolfe[¶], **J.M. Winter**, S. Purdom*, T.F. Partridge*, and L.L. Ding[¶]: The Potential of Heat-Tolerant Corn to Reduce Climate Change Impacts on US Agricultural Production. American Association of Geographers Annual Meeting, Denver, USA, 26 March 2023.
98. **J.M. Winter** and L.E. Price[§]: The spatial and temporal distribution of black-legged ticks and tick-borne pathogens across the Northeastern United States. American Association of Geographers Annual Meeting, Denver, USA, 24 March 2023.

97. L.E. Price[§], **J.M. Winter**, and J.D.T. Savage*: One Step at a Time: The Incorporation of Host Movement into Modeling *Ixodes scapularis* and Pathogen Prevalence. TickBase Annual Meeting, Lake Tahoe, USA, 21 March 2023.
96. J.D.T. Savage*, **J.M. Winter**, and L.E. Price[§]: Modeling the Spread of Lyme Disease in Response to Climate and Land Cover in the Northeastern United States. TickBase Annual Meeting, Lake Tahoe, USA, 21 March 2023.
95. C. Picard[¶], **J.M. Winter**, C.F. Cockburn*, J. Hanrahan, N.G. Teale[§], P.J. Clemins, and B. Beckage: Twenty-first century increases in total and extreme precipitation across the Northeastern United States. American Geophysical Union Fall Meeting, Chicago, USA, 15 December 2022.
94. N.G. Teale[§] and **J.M. Winter**: Warm Season Extreme Precipitation and Damaging Floods in the Northeastern US. American Geophysical Union Fall Meeting, Chicago, USA, 14 December 2022.
93. A. Zia, A.W. Schroth, P.J. Clemins, P.D. Oikonomou, J.S. Hecht, S. Turnbull, B. Beckage, J.M. Winter, D. Rizzo: Simulating Lags, Tipping Points and Cross Scale Interactions in Integrated Socio-Environmental Systems: Evaluating the Impacts of Early vs. Delayed Nutrient Reductions under Alternate Hydro-Climatic Scenarios in Missisquoi Bay, 2000-2050. American Geophysical Union Fall Meeting, Chicago, USA, 14 December 2022.
92. **J.M. Winter**, S.W. Purdom*, T.F. Partridge*, and L.L. Ding[¶]: An Educational Crop-Climate Simulation Model to Enhance STEM Engagement in High Schools. American Geophysical Union Fall Meeting, Virtual, 12 December 2022.
91. **J.M. Winter**, D.I. Wallace, T.F. Partridge*, and X. Shi: Simulated and Observed Black-Legged Tick Dynamics in New England. TickBase Annual Meeting, Virtual, 22 March 2022.
90. S.W. Purdom*, **J.M. Winter**, T.F. Partridge*, and L.L. Ding[¶]: Food, Climate, and Coding: Deploying a Climate-Hydrology-Agriculture Teaching Model to Enhance STEM Education in Underserved Rural Schools. American Association of Geographers Annual Meeting, Virtual, 28 February 2022.
89. **J.M. Winter**, T.F. Partridge*, A.D. Kendall, B. Basso, L. Pei, and D.W. Hyndman: The Climate Change Adaptation Potential of Irrigation in the Central United States. American Association of Geographers Annual Meeting, Virtual, 25 February 2022.
88. T.F. Partridge*, **J.M. Winter**, A.D. Kendall, B. Basso, L. Pei, and D.W. Hyndman: Projected Climate Change Adaptation Potential of Existing and Future Irrigation in the Central United States. American Geophysical Union Fall Meeting, Virtual, 16 December 2021.
87. **J.M. Winter**, C.J. Picard[¶], C.F. Cockburn*, J. Hanrahan, P.J. Clemins, and B. Beckage: Twenty-first century increases in total and extreme precipitation across the Northeastern United States. American Geophysical Union Fall Meeting, New Orleans, USA, 14 December 2021.
86. **J.M. Winter**, C.J. Picard[¶], C.F. Cockburn*, J. Hanrahan, B. Beckage, and P.J. Clemins: Twenty-First Century Increases in Total and Extreme Precipitation Across the Northeastern United States. Vermont EPSCoR Annual Meeting, Virtual, 09 August 2021.
85. C.S. Lesk, E.D. Coffel[§], **J.M. Winter**, D. Ray, J. Zscheischler, S.I. Seneviratne, and R.M. Horton: Projected runoff declines from plant physiological effects on precipitation. European Geophysical Union General Assembly, Vienna, Austria, 27 April 2021.

84. C. Picard [¶], **J.M. Winter**, C.F. Cockburn*, J. Hanrahan, P.J. Clemins, and B. Beckage: Twenty-first century increases in total and extreme precipitation across the Northeastern United States. American Association of Geographers Annual Meeting, Virtual, 10 April 2021.
83. **J.M. Winter**, J.R. Lopez[§], J. Elliott, A.C. Ruane, C. Porter, G. Hoogenboom, M. Anderson, and C. Hain: Sustainable use of groundwater dramatically reduces maize, soybean, and wheat production in the United States. American Association of Geographers Annual Meeting, Virtual, 07 April 2021.
82. **J.M. Winter**, D.I. Wallace, T.F. Partridge*, and X. Shi: Modeling the Sensitivity of Black-legged Ticks (*Ixodes scapularis*) to Temperature and Land Cover in the Northeastern United States. TickBase Annual Meeting, Virtual, 23 March 2021.
81. **J.M. Winter**, J.R. Lopez[§], J. Elliott, A.C. Ruane, C. Porter, G. Hoogenboom, M. Anderson, and C. Hain: Sustainable use of groundwater dramatically reduces maize, soybean, and wheat production in the United States. American Geophysical Union Fall Meeting, Virtual, 15 December 2020.
80. C.F. Cockburn*, **J.M. Winter**, E.C. Osterberg, and F.J. Magilligan: Assessing the Impacts of Extreme Precipitation Change on Flooding in the Northeastern United States. American Geophysical Union Fall Meeting, Virtual, 15 December 2020.
79. E.D. Coffel[§], C.S. Lesk, J.M. Winter, E.C. Osterberg, and J.S. Mankin: Crop-driven cooling boosts agricultural yields. American Geophysical Union Fall Meeting, Virtual, 11 December 2020.
78. C. Lesk, E.D. Coffel[§], J.M. Winter, J. Zscheischler, S.I. Seneviratne, D.K. Ray, and R.M. Horton: The hidden signature of temperature-moisture couplings in the heat sensitivity of global crops. American Geophysical Union Fall Meeting, Virtual, 11 December 2020.
77. S.A. Spera[§], **J.M. Winter**, and T.F. Partridge*: Agricultural Land Clearing in Brazil’s Heartland Degrades Weather and Decreases Maize Yields. American Geophysical Union Fall Meeting, Virtual, 10 December 2020.
76. T.F. Partridge*, **J.M. Winter**, A.D. Kendall, and D.W. Hyndman: The Effect of Agricultural Adaptation on Future Land Atmosphere Coupling over the Central United States. American Geophysical Union Fall Meeting, Virtual, 10 December 2020.
75. **J.M. Winter**, C.J. Picard[¶], C.F. Cockburn*, H. Huang*, J. Hanrahan, B. Beckage, P.J. Clemins, and M. Holthuijzen: Simulating Future Climate over the Lake Champlain Basin. Vermont EPSCoR Policy and Technical Advisory Committee Meeting, Virtual, 20 November 2020.
74. C.F. Cockburn*, **J.M. Winter**, E.C. Osterberg, and F.J. Magilligan: Assessing the Impacts of Extreme Precipitation Change on Flooding in the Northeastern United States. Graduate Climate Conference, Virtual, 30 October 2020.
73. **J.M. Winter**, H. Huang*, E.C. Osterberg, and J.S. Mankin: Anthropogenic Impacts on the Exceptional Precipitation of 2018 in the Mid-Atlantic United States. American Meteorological Society Annual Meeting, Boston, USA, 15 January 2020.
72. S.A. Spera[§], **J.M. Winter**, and T.F. Partridge*: Tradeoffs Between Land-Management and Regional Climate in the Brazilian Cerrado. American Meteorological Society Annual Meeting, Boston, USA, 13 January 2020.

71. C. Lesk, E.D. Coffel[§], **J.M. Winter**, D. Ray, and R.M. Horton: Joint Impacts of Heat and Moisture on Global Crop Yields. American Meteorological Society Annual Meeting, Boston, USA, 12 January 2020.
70. T.F. Partridge*, **J.M. Winter**, A.D. Kendall, D.W. Hyndman, and S.A. Spera[§]: Cross-Scale Evaluation of WRF / Noah-MP-Crop Yield Simulations. American Geophysical Union Fall Meeting, San Francisco, USA, 13 December 2019.
69. H. Huang*, **J.M. Winter**, E.C. Osterberg, and J.S. Mankin: Assessing the Causes of the Post-1996 Shift in Extreme Precipitation Over the Northeastern United States. American Geophysical Union Fall Meeting, San Francisco, USA, 12 December 2019.
68. P.D. Oikonomou, A. Zia, A.W. Schroth, C.L. Marti, P.J. Clemins, D.M. Rizzo, B. Beckage, and J.M. Winter: An Integrated Modeling Approach to Assess the Impact of Climate Change Induced Extreme Events and Non-Stationarity on Lake Cyanobacteria Blooms. American Geophysical Union Fall Meeting, San Francisco, USA, 9 December 2019.
67. **J.M. Winter** and T.F. Partridge* (Invited): Spatially Distinct Seasonal Patterns and Forcings of the US Warming Hole. Northern Vermont University-Lyndon, Lyndon, USA, 24 October 2019.
66. **J.M. Winter**, H. Huang*, and E.C. Osterberg (Invited): Mechanisms of Extreme Precipitation Change Over the Northeast. NOAA Climate Services and the Northeast Regional Climate Center, Webinar, 10 September 2019.
65. **J.M. Winter**, H. Huang*, and B. Beckage: Climate Contribution to Basin Resilience to Extreme Events Research. Vermont EPSCoR NSF Site Visit, Burlington, USA, 4 September 2019.
64. **J.M. Winter**, B. Beckage, P.J. Clemins, J. Hanrahan, M. Holthuijzen, H. Huang*, and C. Crossett: Climate Team Overview and Progress. Vermont EPSCoR Annual Meeting, Burlington, USA, 4 June 2019.
63. **J.M. Winter**, T.F. Partridge*, J.W. Chipman, and F.L. Bowen[¶] (Invited): Future Extreme Event Risk in the Rural Northeastern United States. American Association of Geographers Annual Meeting, Washington DC, USA, 4 April 2019.
62. S.A. Spera[§] and **J.M. Winter**: Tradeoffs Between Land-Management and Regional Climate in the Brazilian Cerrado. American Association of Geographers Annual Meeting, Washington DC, USA, 3 April 2019.
61. **J.M. Winter**, H. Huang*, and E.C. Osterberg: Mechanisms of Abrupt Extreme Precipitation Change Over the Northeastern United States. American Association of Geographers Annual Meeting, Washington DC, USA, 3 April 2019.
60. **J.M. Winter**, H. Huang*, E.C. Osterberg, B. Beckage, and J. Hanrahan (Invited): Simulating Future Climate in the Lake Champlain Basin: Methods, Limitations, and Uncertainties. International Joint Commission Climate Risk Workshop, Montreal, Canada, 19 March 2019.
59. H. Huang*, **J.M. Winter**, and E.C. Osterberg (Invited): Assessing Extreme Precipitation Changes and Mechanisms over the Northeastern United States. Lawrence Berkeley National Laboratory, Berkeley, USA, 15 January 2019.
58. T.F. Partridge*, **J.M. Winter**, E.C. Osterberg, D.W. Hyndman, B. Basso, and A.D. Kendall: The Impacts of the U.S. Warming Hole on Agricultural Yields. American Geophysical Union Fall

Meeting, Washington DC, USA, 14 December 2018.

57. **J.M. Winter**, T.F. Partridge*, D. Wallace, E.R. Dekker[¶], J.W. Chipman, and M.P. Ayres: The Sensitivity of Lyme Disease to Climate and Land Cover in the Northeastern United States. American Geophysical Union Fall Meeting, Washington DC, USA, 11 December 2018.

56. J.A. Langlois, L.A. Cornell, J. Hanrahan, J.M. Winter, H. Huang*, and C.L. Bruyère: Examining the Impact of Great Lakes' Temperature Perturbations on Simulated Downwind Precipitation. American Geophysical Union Fall Meeting, Washington DC, USA, 11 December 2018.

55. S.A. Spera[§] and **J.M. Winter**: Tradeoffs Between Land-Management and Regional Climate in the Brazilian Cerrado. American Geophysical Union Fall Meeting, Washington DC, USA, 11 December 2018.

54. F.M. Hoffman, B. Beckage, L.J. Gross, K. Lacasse, E. Carr, S.S. Metcalf, J.M. Winter, P.D. Howe, N. Fefferman, T. Frank, A. Zia, and A. Kinzig: Linking models of human behavior and climate alters projected climate change. American Geophysical Union Fall Meeting, Washington DC, USA, 11 December 2018.

53. E. Coffel[§], J.S. Mankin, J.M. Winter, and R.M. Horton: Future hottest day per year poses a humid-heat stress risk despite being amplified by land surface drying. American Geophysical Union Fall Meeting, Washington DC, USA, 10 December 2018.

52. H. Huang*, **J.M. Winter**, J. Hanrahan, C.L. Bruyère, P.J. Clemins, and B. Beckage: Simulating Extreme Precipitation in the Lake Champlain Basin using a Regional Climate Model: Limitations and Uncertainties. American Geophysical Union Fall Meeting, Washington DC, USA, 11 December 2018.

51. S.A. Spera[§] and **J.M. Winter** (Invited): Setting Up a Regional Climate Model over Brazil: Practices and Pitfalls. Northern Vermont University, Lyndon, USA, 25 October 2018.

50. **J.M. Winter**, B. Beckage, P. Clemins, J. Hanrahan, M. Holthuijzen, H. Huang*, and C. Crossett: Climate Team Overview and Progress. Vermont EPSCoR Annual Meeting, Burlington, USA, 12 June 2018.

49. **J.M. Winter** and J.R. Lopez[§]: Sustainable Water Use Impacts on US Irrigated Agriculture. American Association of Geographers Annual Meeting, New Orleans, USA, 10 April 2018.

48. **J.M. Winter**, H. Huang*, and B. Beckage: Climate Contribution to Basin Resilience to Extreme Events Research. Vermont EPSCoR NSF Reverse Site Visit, Washington DC, USA, 19 March 2018.

47. A. Davitt, **J.M. Winter**, K.C. McDonald, V.M. Escobar, and N. Steiner: A blended approach to analyze staple and high-value crops using remote sensing with radiative transfer and crop models. American Geophysical Union Fall Meeting, New Orleans, USA, 14 December 2017.

46. J.S. Hecht, A.Zia, B. Beckage, J.M. Winter, A.W. Schroth, A. Bombliès, P.J. Clemins, and D.M. Rizzo: Effects of changes in climate variability and extremes on the exceedance of critical algal bloom thresholds. American Geophysical Union Fall Meeting, New Orleans, USA, 14 December 2017.

45. T.F. Partridge*, **J.M. Winter**, E.C. Osterberg, F.J. Magilligan, D.W. Hyndman, and A.D. Kendall: Characterizing the Seasonality and Spatiotemporal Evolution of the U.S. Warming Hole. American Geophysical Union Fall Meeting, New Orleans, USA, 14 December 2017.

44. H. Huang*, **J.M. Winter**, and E.C. Osterberg: Mechanisms of the Extreme Precipitation Jump in the Northeastern United States after 1996. American Geophysical Union Fall Meeting, New Orleans, USA, 14 December 2017.
43. J.R. Lopez[§], **J.M. Winter**, J. Elliott, and A.C. Ruane: Evaluating Gridded Crop Model Simulations of Evapotranspiration and Irrigation Using Survey and Remotely Sensed Data. American Geophysical Union Fall Meeting, New Orleans, USA, 14 December 2017.
42. **J.M. Winter**, F.L. Bowen[¶], J.W. Chipman, and T.F. Partridge*: Future Extreme Event Vulnerability in the Rural Northeastern United States. American Geophysical Union Fall Meeting, New Orleans, USA, 11 December 2017.
41. **J.M. Winter**, H. Huang*, and E.C. Osterberg (Invited): Total and Extreme Precipitation Changes over the Northeastern United States. NOAA NWS Northeast River Forecast Center, Norton, USA, 29 November 2017.
40. T.F. Partridge*, **J.M. Winter**, E.C. Osterberg, F.J. Magilligan, D.W. Hyndman, and A.D. Kendall: Characterizing the Seasonality and Spatiotemporal Evolution of the U.S. Warming Hole. Graduate Climate Conference, Woods Hole, USA, 11 November 2017.
39. J.R. Lopez[§], **J.M. Winter**, J. Elliott, and A.C. Ruane: Understanding the Impact of Sustainable Water Use on US Irrigated Agriculture. ASA, CSSA, SSSA International Annual Meeting, Tampa, USA. 23 October 2017.
38. S.A. Spera[§] and **J.M. Winter** (Invited): Sacrifice Zone or Sustainable Agricultural Powerhouse: The Brazilian Cerrado. Bates College, Lewiston, USA, 19 September 2017.
37. **J.M. Winter**, B. Beckage, H. Huang*, and P. Clemins: Climate Change Projections for the Lake Champlain Basin. Vermont EPSCoR Annual Meeting, Burlington, USA, 06 June 2017.
36. J.R. Lopez[§] and **J.M. Winter** (Invited): Maximizing Crop Yield in Water Limited Areas through Breeding and Irrigation Scheduling. University of Arizona, Tucson, USA, 15 May 2017.
35. **J.M. Winter**, H. Huang*, and E.C. Osterberg: Total and Extreme Precipitation Changes over the Northeastern United States. American Association of Geographers Annual Meeting, Boston, USA, 7 April 2017.
34. **J.M. Winter**, G. Bucini, P. Clemins, and B. Beckage: Spatially and Physically Consistent Weather Estimation using Bias-Corrected Climate Simulations and Reanalysis Analogs. American Geophysical Union Fall Meeting, San Francisco, USA, 15 December 2016.
33. H. Huang*, **J.M. Winter**, E.C. Osterberg, R.M. Horton, and B. Beckage: Total and Extreme Precipitation Changes over the Northeastern United States. American Geophysical Union Fall Meeting, San Francisco, USA, 12 December 2016.
32. J.R. Lopez[§], **J.M. Winter**, J. Elliott, and A.C. Ruane: Potential of Deficit Irrigation As a Water Conservation Strategy in Water Limited Areas. ASA, CSSA, SSSA International Annual Meeting, San Antonio, USA. 9 November 2016.
31. S.A. Spera[§] and **J.M. Winter** (Invited): Land-Use Change and Its Effects on Regional Climate in the Brazilian Cerrado. Lyndon State College, Lyndon, USA, 29 September 2016.
30. **J.M. Winter**, B. Beckage, G. Bucini, R.M. Horton, and J. Guilbert: Climate Change Scenarios for Lake Champlain Basin Impacts Assessments. Vermont EPSCoR Annual Meeting, Burlington,

USA, 6 February 2016.

29. **J.M. Winter**, C.A. Young, V.K. Mehta, V.R. Haden, A.C. Ruane, and C. Rosenzweig: Climate Impacts on Irrigated Agriculture in California’s Central Valley. American Geophysical Union Fall Meeting, San Francisco, USA, 14 December 2015.
28. **J.M. Winter**, A.C. Ruane, and C. Rosenzweig (Invited): AgMIP Water: Integrating Water Scarcity into Future Agricultural Assessments. American Society of Agricultural and Biological Engineers 1st Climate Change Symposium, Chicago, USA, 05 May 2015.
27. **J.M. Winter**, G. Bucini, and B. Beckage: Very High Resolution Climate Change Projections for Hydrologic Impacts Assessments over the Lake Champlain Basin in Vermont. American Association of Geographers Annual Meeting, Chicago, USA, 23 April 2015.
26. **J.M. Winter**, C. Rosenzweig, A.C. Ruane, D. Purkey, C. Young, D. Yates, V. Mehta, C.J. Vörösmarty, K. McDonald, and M. Azarderakhsh: Adaptation Planning for Climate Change Impacts using Advanced Decision Support and Remote Sensing: Irrigated Agriculture in California’s Central Valley. NASA Applied Sciences Program Water Resources Meeting, Greenbelt, USA, 03 March 2015.
25. A.C. Ruane, J.M. Winter, S. McDermid, R. Valdivia, and D. Cammarano (Invited): Introduction to the Agricultural Model Intercomparison and Improvement Project (AgMIP). AgMIP Global Workshop, Gainesville, USA, 25 February 2015.
24. **J.M. Winter**, B. Beckage, and G. Bucini: Very High Resolution Climate Change Projections for Hydrologic Impacts Assessments over the Lake Champlain Basin in Vermont. American Geophysical Union Fall Meeting, San Francisco, USA, 17 December 2014.
23. **J.M. Winter**, B. Beckage, G. Bucini, and P. Clemins: Climate Change Projections for the Lake Champlain Basin. Vermont EPSCoR Annual Meeting, Burlington, USA, 05 August 2014.
22. **J.M. Winter**, C. Young, M. Azarderakhsh, A.C. Ruane, and C. Rosenzweig (Invited): Climate Change Impacts on Water Resources and Irrigated Agriculture in the Central Valley of California. NASA and California Department of Water Resources Remote Sensing for Drought Monitoring and Response Workshop, Sacramento, USA, 25 February 2014.
21. **J.M. Winter**, C. Young, M. Azarderakhsh, A.C. Ruane, and C. Rosenzweig: Climate Change Impacts on Water Resources and Irrigated Agriculture in the Central Valley of California. American Geophysical Union Fall Meeting, San Francisco, USA, 12 December 2013.
20. **J.M. Winter**, C. Rosenzweig, A.C. Ruane, C. Young, and B.M. Fekete (Invited): AgMIP Water: Integrating Water Scarcity into Future Agricultural Assessments. AgMIP Global Workshop, New York, USA, 28 October 2013.
19. **J.M. Winter**, C. Rosenzweig, A.C. Ruane, D. Purkey, C. Young, D. Yates, C.J. Vörösmarty, K. McDonald, and B.M. Fekete: Adaptation Planning for Climate Change Impacts using Advanced Decision Support and Remote Sensing: Irrigated Agriculture in California’s Central Valley. NASA Applied Sciences Program Water Resources Meeting, Lincoln, USA, 24 September 2013.
18. **J.M. Winter**, B. Beckage, J. Guilbert, and G. Bucini: Climate Change Projections for the Lake Champlain Basin. Vermont EPSCoR Annual Meeting, Burlington, USA, 16 May 2013.

17. **J.M. Winter**, B.M. Fekete, A.C. Ruane, and C. Rosenzweig: Adaptation Planning for Climate Change Impacts on Irrigated Agriculture in California. American Geophysical Union Fall Meeting, San Francisco, USA, 06 December 2012.
16. **J.M. Winter**, A.C. Ruane, and C. Rosenzweig (Invited): Climate Information for the Impacts Community: The Agricultural Model Intercomparison and Improvement Project (AgMIP). IS-ENES Workshop on Statistical Downscaling for the Impacts Community, Paris, France, 16 October 2012.
15. **J.M. Winter** (Invited): Climate Scenario Generation for the Tempisque River Basin: Mean, Variability, and Extremes. Tempisque Water Sustainability Workshop, Palo Verde, Costa Rica, 25 April 2012.
14. **J.M. Winter**, A.C. Ruane, C. Rosenzweig, J.W. Jones, and J.L. Hatfield (Invited): The Agricultural Model Intercomparison and Improvement Project (AgMIP): Progress and Preliminary Results. International Research Institute for Climate and Society Seminar, Palisades, USA, 15 April 2012.
13. **J.M. Winter**, A.C. Ruane, and C. Rosenzweig: Predicting the Impacts of Climate Change on Central American Agriculture. American Geophysical Union Fall Meeting, San Francisco, USA, 05 December 2011.
12. **J.M. Winter**, A.C. Ruane, and C. Rosenzweig (Invited): The Agricultural Model Intercomparison and Improvement Project (AgMIP): Building a Framework to Assess World Food Security. CORDEX Africa Analysis Workshop, Cape Town, South Africa, 04 July 2011.
11. **J.M. Winter**, A.C. Ruane, and C. Rosenzweig (Invited): The Agricultural Model Intercomparison and Improvement Project (AgMIP): Building a Framework to Assess World Food Security. USAID Adaptation Partnerships Workshop, Dakar, Senegal, 29 June 2011.
10. **J.M. Winter**, E.A.B. Eltahir, C. Rosenzweig, and A.C. Ruane (Invited): Predicting the Regional Impacts of Climate Change on Agricultural Areas. Boston University, Boston, USA, 14 March 2011.
9. **J.M. Winter**, A.C. Ruane, R.M. Horton, and C. Rosenzweig: Integrating NASA Models and Missions into Central American Agricultural Decision Support. American Meteorological Society Annual Meeting, Seattle, USA, 26 January 2011.
8. J.M. Winter and E.A.B. Eltahir: Modeling the Hydroclimatology of the Midwestern United States: Predicting Soil Moisture Under a Warmer Climate. American Geophysical Union Fall Meeting, San Francisco, USA, 14 December 2010.
7. J.M. Winter and E.A.B. Eltahir (Invited): Modeling Land Surface Processes of the Midwestern United States: Predicting Soil Moisture Under a Warmer Climate. Fifth ICTP Workshop on the Theory and Use of Regional Climate Models, Trieste, Italy, 09 June 2010.
6. J.M. Winter and E.A.B. Eltahir: Predicting Summer Dryness Under a Warmer Climate: Modeling Land Surface Processes in the Midwestern United States. American Geophysical Union Fall Meeting. San Francisco, USA, 16 December 2009.
5. J.M. Winter and E.A.B. Eltahir: Improving the Ability of RegCM3-IBIS to Simulate the Hydroclimatology of the American Midwest. American Geophysical Union Fall Meeting, San Francisco, USA, 19 December 2008.

4. J.M. Winter and E.A.B. Eltahir: Evaluating RegCM3 over the Midwestern United States. American Geophysical Union Joint Assembly, Fort Lauderdale, USA, 30 May 2008.
3. J.M. Winter and E.A.B. Eltahir: Simulated Climatology and Sensitivity of Latent Heat Flux over the Midwestern United States. Massachusetts Institute of Technology, Cambridge, USA, 4 April 2008.
2. J.M. Winter and E.A.B. Eltahir: Coupling of Integrated Biosphere Simulator to Regional Climate Model Version 3. European Geophysical Union General Assembly, Vienna, Austria, 17 April 2007.
1. J.M. Winter and E.A.B. Eltahir: The Coupling of RegCM3-IBIS, When Models Don't Get Along. Massachusetts Institute of Technology, Cambridge, USA, 14 March 2006.