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Lynée L. Turek-Hankins

research interests

Extreme heat risks and responses
Adaptation and mitigation for the home–energy nexus
Stakeholder-engaged research methods
Decision support for climate change solutions

education

University of Miami
Ph.D, Environmental Science & Policy, 2024.
Stanford University
B.S.E., Mechanical Engineering, 2019.

appointments

Dartmouth College
Lecturer, Thayer School of Engineering, 2025–Present.
Neukom Postdoctoral Fellow, Neukom Institute for Computational Science, 2024–Present.

work experience

RAND Corporation
Adjunct Researcher, Engineering and Applied Sciences Division, 2023–2024.
Summer Associate, Engineering and Applied Sciences Division, 2023.
Washington State University
Energy Policy Research Scientist, Energy Program, 2021–2024.
Oak Ridge National Laboratory
Engineering Intern, Building Envelope and Urban Systems Group, 2019.
Stanford University
Climate Policy Intern, Woods Institute for the Environment, 2019.
Research Assistant, Butte Medical Lab for Bioengineering and Immunology, 2015.

awards

Neukom Postdoctoral Fellow, Neukom Institute for Computational Science, Dartmouth College. 2024
RAND Summer Associate, The RAND Corporation. 2023
Future Climate Leader, The Aspen Institute, Energy & Environment Program. 2023
Graduate Research Fellow, The National Science Foundation. 2021
Racial Justice Research Grant, University of Miami. 2021
U-Link Climate Justice Fellow, University of Miami. 2020
Oak Ridge Institute for Science and Education Fellow, Building Envelope and Urban Systems Group, Oak Ridge National Laboratory. 2019
Mentoring Undergraduates in Interdisciplinary Research Grant, Woods Institute for the Environment, Stanford University. 2018
Questbridge Match Scholar, Questbridge. 2013

journal articles

Citations: **876**, H-index: **7**

Cruz, M., Mach, K. J., **Turek-Hankins, L. L.**, Bailey, Z. D., Ashad-Bishop, K. C., Evans, S. D., Fanning, A., Fernandez-Burgos, M., Gilbert, J., Howard, B., Mahabir, M., Marturano, J., Murphy Goes, L., Muse, N., Pérodin, J., and Clement, A. C. **2025**. *Where heat doesn't come in waves: A framework for understanding and managing chronic heat. Environmental Research: Climate* 4 (2), p. 023002. DOI: 10.1088/2752-5295/adc827.

Turek-Hankins, L. L., Cruz, M., Brown, N., Muse, N., Clement, A., and Mach, K. J. **2025**. *Interactions between indoor heat and energy affordability amplify household risks in hot-humid US climate zones*. *One Earth* 8 (3). DOI: 10.1016/j.oneear.2025.101235.

Mach, K. J., Jagannathan, K., Shi, L., **Turek-Hankins, L. L.**, Arnold, J. R., Brelsford, C., Flores, A. N., Gao, J., Martín, C. E., McCollum, D. L., Moss, R., Niemann, J., Rashleigh, B., and Reed, P. M. **2024**. *Research to confront climate change complexity: Intersectionality, integration, and innovative governance*. *Earth's Future* 12 (6), e2023EF004392. DOI: 10.1029/2023EF004392.

Araos, M., [...], **Turek-Hankins, L. L.**, et al. **2021**. *Equity in adaptation: A systematic global review*. *One Earth* 4 (10), pp. 1454–1467. DOI: 10.1016/j.oneear.2021.09.001.

Berrang-Ford, L., [...], **Turek-Hankins, L. L.**, et al. **2021**. *A systematic global stocktake of evidence on human adaptation to climate change*. *Nature Climate Change* 11, pp. 989–1000. DOI: 10.1038/s41558-021-01170-y.

Turek-Hankins, L. L., Coughlan de Perez, E., Scarpa, G., Ruiz-Diaz, R., Schwerdtle, P. N., Tom Joe, E., Galappaththi, E. K., French, E. M., Austin, S. E., Singh, C., Siña, M., Siders, A. R., van Aalst, M. K., Templeman, S., Nunbogu, A. M., Berrang-Ford, L., Agrawal, T., the GAMI team, and Mach, K. J. **2021**. *Climate change adaptation to extreme heat: A global systematic review of implemented action*. *Oxford Open Climate Change* 1 (1), kgab005. DOI: 10.1093/oxfclm/kgab005.

Turek-Hankins, L. L., Hino, M., and Mach, K. J. **2020**. *Risk screening methods for extreme heat: Implications for equity-oriented adaptation*. *PLoS One* 15 (11), e0240841. DOI: 10.1371/journal.pone.0240841.

articles in review

Brelsford, C., Amaya, M., Basheer, M., Helmrick, A., Klassert, C. J., Li, X., Marston, L. T., Niazi, H., Peng, W., Chowdhury, P. K. R., Shiwang, J., **Turek-Hankins, L. L.**, Waite, T., Yoon, J., and Zuidema, S. *Key moments in coupled human-natural systems*. In Review.

Turek-Hankins, L. L., Schueler, V., Hino, M., and Mach, K. J. *Weatherization reduces needs for energy bill assistance*. In Review.

assessments

Teneva, L. T., Bierwagen, B. G., Brown, J. K., Cannizzo, Z. J., Cross, M., Fleishman, E., Chisholm Hatfield, S., Mladinich, S., Newman, R., Oldfather, M., **Turek-Hankins, L. L.**, and Ward, M. **Expected 2028**. *Ch. 19. Nature and ecosystems*. Sixth National Climate Assessment. Washington, DC, USA: U.S. Global Change Research Program.

Mach, K. J., Vallario, R., Arnold, J. R., Brelsford, C., Calvin, K. V., Flores, A. N., Gao, J., Jagannathan, K., Judi, D., Martín, C. E., Moore, F. C., Moss, R., Nance, E., Rashleigh, B., Reed, P. M., Shi, L., and **Turek-Hankins, L. L. 2023**. *Ch. 18. Sector interactions, multiple stressors, and complex systems*. Fifth National Climate Assessment. Washington, DC, USA: U.S. Global Change Research Program. DOI: 10.7930/NCA5.2023.CH18.

invited talks

"**Understanding complex drivers of heat vulnerability**", Boston-Area Complex Risk Science: Exploring new frontiers and a new community for understanding risk. *Keynote*. Boston, MA, 2025.

"**Heat and health: Innovative strategies for safer homes**", Miami Climate Week. *Panel discussion*. Miami, FL, 2025.

"**Adaptation for the heat-energy-housing nexus requires analyzing and addressing intersectional, chronic risks**", American Geophysical Union Conference. *Research presentation*. Washington, DC, 2024.

"**Caught between a hot home and a high energy bill**", Columbia University's Extreme Heat Workshop. *Research presentation*. New York, NY, 2024.

"**Community engagement for actionable knowledge**", Global Council for Science and the Environment and NASA Applied Sciences. *Workshop presenter*. Virtual workshop, 2023.

"**Searing, sweltering, stifling: How record-high temperatures and a marine heat wave baked South Florida this summer**", Rosenstiel School Climate Café Chat. *Speaker*. Miami, FL, 2023.

"**Multisector impacts and response opportunities to increasing extreme heat**", Cornell Environmental and Water Resource Engineering Seminar. *Research presentation*. Virtual seminar, 2022.

"**An introduction to extreme heat and adaptation science for journalists**", Institute for Journalism & Natural Resources. *Workshop presenter*. Virtual workshop, 2022.

"**Inclusive design & climate change resilience: Establishing a beachhead with SE Florida's spinal cord injury community**", Miller School of Medicine Dean Henri R. Ford's Interdisciplinary Seminar. *Speaker*. Miami, FL, 2022.

"**Societal preparedness for the multisector impacts of extreme heat**", American Geophysical Union Conference. *Research presentation*. New Orleans, LA, 2021.

"**The energy-housing-built environment nexus under a changing climate**", Rosenstiel School Sea Secrets Seminar Series. *Speaker*. Miami, FL, 2021.

"**¿Qué es el cambio climático?**", Evergreen Elementary School. *Speaker*. Shelton, WA, 2021.

"**Equitable adaptation to extreme heat and the urban heat island effect in a changing climate**", City Government of Hallandale Beach. *Speaker*. Hallandale Beach, FL, 2020.

"**Climate adaptation & COVID-19: Managing compound hazards**", Rosenstiel School Climate Café Chat. *Speaker*. Miami, FL, 2020.

conference presentations

Brelsford, C., Amaya, M., Basheer, M., Helmrick, A., Klassert, C. J., Li, X., Marston, L. T., Niazi, H., Peng, W., Chowdhury, P. K. R., Shiwang, J., **Turek-Hankins, L. L.**, Waite, T., Yoon, J., and Zuidema, S. **2024**. *Key moments in coupled human-natural systems*. American Geophysical Union Conference (Washington, DC).

Turek-Hankins, L. L. 2024. *Making co-production work*. Science of Actionable Knowledge Workshop (Berkeley, CA).

Turek-Hankins, L. L., Cruz, M., Brown, N., Muse, N., Clement, A. C., and Mach, K. J. **2023**. *Multisector indoor heat risk in a chronically hot city*. American Geophysical Union Conference (San Francisco, CA).

Turek-Hankins, L. L., Hino, M., and Mach, K. J. **2020**. *Equitable adaptation to extreme heat in California*. Association for Environmental Studies and Sciences Conference (Remote).

Turek-Hankins, L. L., Hino, M., and Mach, K. J. **2020**. *Equitable adaptation to extreme heat in California*. University of Washington Graduate Climate Conference (Remote).

Turek-Hankins, L. L., Hino, M., and Mach, K. J. **2020**. *Risk screening methods for extreme heat: implications for equity-oriented adaptation*. 2020 American Geophysical Union Conference (Remote).

Turek-Hankins, L. L. 2019. *Thermal performance with a whole-building conduction time-series profile*. Engineers in Technical and Humanitarian Opportunities of Service Conference (Bellevue, WA).

conference posters

Cruz, M., Mach, K. J., **Turek-Hankins, L. L.**, Bailey, Z. D., Ashad-Bishop, K. C., Evans, S. D., Fanning, A., Fernandez-Burgos, M., Gilbert, J., Howard, B., Mahabir, M., Marturano, J., Murphy Goes, L., Muse, N., Pérodin, J., and Clement, A. C. **2024**. *Where heat doesn't come in waves: A framework for understanding and managing chronic heat*. Columbia University's Extreme Heat Workshop (New York, NY).

Mach, K. J., Vallario, R., Arnold, J. R., Brelsford, C., Calvin, K. V., Flores, A. N., Gao, J., Jagannathan, K., Judi, D., Martín, C. E., Moore, F. C., Moss, R., Nance, E., Rashleigh, B., Reed, P. M., Shi, L., and **Turek-Hankins, L. L. 2023**. *Fifth National Climate Assessment: Ch. 18 – Sector Interactions, Multiple Stressors, and Complex Systems*. American Geophysical Union Conference (San Francisco, CA).

Turek-Hankins, L. L., Cruz, M., Brown, N., Muse, N., Clement, A. C., and Mach, K. J. **2023**. *Multisector indoor heat risk in a chronically hot city*. MultiSector Dynamics Workshop (Davis, CA).

Wells, A., Bass, D., Samano Martin Del Campo, D., Correa, M., **Turek-Hankins, L. L.**, James, A., Lombard, J., Mach, K., and McMillan, D. **2023**. *Perspectives of Southeastern Floridians living with spinal cord injury (SCI): hurricane and associated flood preparedness and navigation*. American Public Health Association Annual Meeting and Expo (Washington, DC).

Wells, A., Bass, D., Samano Martin Del Campo, D., Correa, M., **Turek-Hankins, L. L.**, James, A., Lombard, J., Mach, K., and McMillan, D. **2023**. *Perspectives of Southeastern Floridians living with spinal cord injury (SCI): hurricane and associated flood preparedness and navigation*. University of Miami Climate and Health Symposium (Miami, FL).

Turek-Hankins, L. L., Hino, M., and Mach, K. J. **2020**. *Equitable adaptation to extreme heat in California*. University of Miami Graduate Research Symposium (Miami, FL).

Turek-Hankins, L. L., Pilet, T., and Pallin, S. **2019**. *Thermal performance with a whole-building conduction time-series profile*. Oak Ridge National Laboratory Research Symposium (Oak Ridge, TN).

media coverage

Summer will be here soon, and with it life-threatening heat, *Maria Avlonitis*, **WUFT NPR**, 2025-05-14.

'Super Heat Trio' examines the impacts of intense indoor heat, *Robert C. Jones Jr*, **News@TheU**, 2025-04-21.

Federal program helps low-income Floridians keep power on. Trump laid off its staff, *Alex Harris and Max Klaver*, **Miami Herald**, 2025-04-04.

Staying cool in Miami: UM study looks at who is most at risk from dangerous heat, *Jenny Staletovich*, **WLRN NPR**, 2025-03-24.

On sweltering Miami summer days, it can be hotter inside homes than out, study finds, *Alex Harris*, **Miami Herald**, 2025-03-21.

Researchers measure the dangers of indoor heat, *Robert C. Jones Jr*, **News@TheU**, 2023-08-04.

Miami is Used to Heat, but Not Like This, *Amy Green*, **Inside Climate News**, 2023-08-01.

Science as Actionable Knowledge Video Series, *Global Council for Science and the Environment and NASA Applied Science*, 2023-09-01.

Unprecedented heat extremes 'could occur in any region globally', *Ayesha Tandon*, **Carbon Brief**, 2023-04-25.

Study aims to aid people in wheelchairs impacted by climate change, *University of Miami*, **Newswise**, 2022-10-14.

Hot Take: Experts Say Long-Range Forecast for Hotter South Florida May Be Optimistic, *Naomi Feinstein*, **Miami New Times**, 2022-08-24.

Rising Temps Due to Climate Change Impact Maternal Health, Studies Show, *Amanda Plasencia*, **NBC Miami**, 2021-04-22.

Geography, economic level affect adaptation to extreme heat, *Robert C. Jones Jr.*, **News@TheU**, 2021-08-11.

opinion

Turek-Hankins, L. L. and Mach, K. J. **2021**. *A major federal response to occupational extreme heat is here at last*. The Conversation.

organized events

Leveraging the National Climate Assessment to Empower Communities, National Academies of Science, Engineering and Medicine, *workshop organizer*, Washington, DC. 2024

The home energy transition and the heat pump, *workshop organizer*, Hanover, NH. 2024

Deliberative conversations in Kern County, California Economic Resilience Fund, *workshop organizer*, Kern, CA. 2023

MultiSector Dynamics: Urban System Interactions and Resilience, American Geophysical Union Conference, *convener*, San Francisco, CA. 2023

Energy and Housing Justice in a Changing Climate, *panel moderator*, Miami, FL. 2021

Climate activism in Miami, *panel organizer*, Miami, FL. 2021

Climate justice leadership in Miami, *event organizer*, Miami, FL. 2021

Cascading Disasters at the Intersection of Underserved Communities, *panel organizer*, Miami, FL. 2021

teaching

Dartmouth College

Co-instructor, ENGS 172: Climate change and engineering. 2025.
Taught module, ENGS 7.02: Climate change. 2025.
Guest lecturer, ANTH 50.48: Energy justice. 2025.

Yale University

Guest lecturer, ENV 791b: Climate adaptation. 2025.

University of Miami

Guest lecturer, JMM 592/692: Covering global issues in Miami. 2023.
Guest lecturer, EVR 511/11: The science of actionable knowledge. 2023, 2024.
Guest lecturer, ENG 181; ECS 304; Climate resilience academy. 2022, 2023.
Guest lecturer, ECS 403; RSM 520/620: Climate and society. 2021.
Guest lecturer, CCA 594/795; JMM 592/692: Podcast storytelling. 2020.
Guest lecturer, PSC 101: Science and technology for future presidents. 2020.
Teaching assistant, ECS 111: Introduction to ecosystem science. 2020.

service

U.S. Sixth National Climate Assessment, *chapter author*. 2024–present
U.S. Fifth National Climate Assessment, *chapter author*. 2021–2023
Miami-Dade County Climate and Heat Health Task Force, *task force member*. 2021–2022
Miami Resilient 305 initiative, *science advisor*. 2020–2021
Miami heat-health messaging campaign, *science advisor*. 2020–2021
California Strategic Growth Council, *climate science working group advisor*. 2020–2021
Greenaction for Health and Environmental Justice, *volunteer researcher*. 2017

advising

Graduate

Alexis Hudes, Research Co-Mentor (with Klaus Keller and Erin Mayfield), 2024–present.

Undergraduate

Clare Ip, Research Mentor, 2025–present.

peer review

Nature Health
Nature Communications
The Lancet Planetary Health
Environmental Science & Policy
Frontiers in Public Health
Environment, Development & Sustainability
Weather, Climate, and Society