Michael F. Wehner

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Education:
Ph.D., 1983, University of Wisconsin-Madison (Nuclear Engineering)
M.S., 1980, University of Wisconsin-Madison (Nuclear Engineering)
B.S., 1978, University of Delaware, Graduated with High Honors (Physics)

Dissertation:
Numerical Evaluation of Path Integral Solutions to Fokker-Planck Equations
    (Advisor: Professor W.G. Wolfer)

Biography:

Michael F. Wehner is a senior staff scientist in the Computational Research Division at the Lawrence Berkeley National Laboratory. Dr. Wehner's current research concerns the behavior of extreme weather events in a changing climate, especially heat waves, intense precipitation, drought and tropical cyclones. Before joining the Berkeley Lab in 2002, Wehner was an analyst at the Lawrence Livermore National Laboratory in the Program for Climate Modeling Diagnosis and Intercomparison. He is the author or co-author of over 270 scientific papers and reports. He was a lead author for the 2013 5th and 6th Assessment Reports of the Intergovernmental Panel on Climate Change and the 2nd,3rd,4th and 5th US National Assessments on climate change. He received the 2022 LBNL Director's Award for Exceptional Scientific Achievement and was named a Clarivate Highly Cited Researcher in 2020, 2021,2022 and 2023.

Employment:
2013-present: Senior Staff Scientist, Scientific Computing Group, Applied Mathematics and Computational Research Division, Lawrence Berkeley National Laboratory, Berkeley, CA
2002-2013: Staff Scientist, Scientific Computing Group, Computational Research Division, Lawrence Berkeley National Laboratory, Berkeley, CA
1998-2002: Physicist, Program for Climate Modeling and Intercomparison, Lawrence Livermore National Laboratory, Livermore, CA
1991-1998: Physicist, Climate System Modeling group, A-division, Lawrence Livermore National Laboratory, Livermore, CA
1985-1991: Physicist, Code Development group, B-division, Lawrence Livermore National Laboratory, Livermore, CA
1983-1984: Post doctoral Research Associate, Nuclear Engineering Department, University of Wisconsin-Madison

Selected Professional Activities:
- Member of Lead Author team, Intergovernmental Panel on Climate Change 6th Assessment Report (IPCC AR6), chapter 11, *Weather and climate extreme events in a changing climate* (2018-2021)
- Contributing author, SF Bay Area Regional Report for California's Fourth Climate Assessment 2018

- Member of Lead Author team, US Global Change Research Program, 2nd,3rd,4th and 5th US National Climate Assessment Reports 2009-present
- Chief Scientific Editor and co-founder, Advances in Statistical Meteorology, Climatology and Oceanography. A Copernicus journal. 2014-present
- Chair, Ad-Hoc International Detection and Attribution Group (IDAG), 2010-2020
- Member of Lead Author team, Intergovernmental Panel on Climate Change 5th Assessment Report (IPCC AR5), chapter 12, *Long Term Projections* (2010-2014)
- Chapter 14 Lead, US Government IPCC AR5 Review Committee (2012)
- Member of Lead Author team, US Climate Change Science Program, Unified Synthesis Report, "*Global Climate Change Impacts in the United States*" 2009
- Member of Lead Author team, US Climate Change Science Program Synthesis and Assessment Report 3.3, "*Weather and Climate Extremes in a Changing Climate. Regions of Focus: North America, Hawaii, Caribbean, and U.S. Pacific Islands.*" 2008
- Testified before the House Select Committee on Energy Independence and Global Warming at the briefing "*Extreme Weather in a Warming World*" September 23, 2010.
- Awarded 2010 Editors' Citation for Excellence in Refereeing for Geophysical Review Letters
- Member, Climate Science Working Group of the National Climate Assessment Development and Advisory Committee, 2011-2012
- I am a frequent reviewer of scientific papers and proposals and also have been on many scientific meeting organizing committees and review panels.
- I am comfortable in dealing with the media, both in print and television/radio. Selected audio and video clips are linked on my website above.

Publications

I have written over 270 scientific articles. According to google.scholar.com, my h-index is 79, my i10-index is 189, with over 33,000 total citations. A complete publication list is attached, also see this link:

https://crd.lbl.gov/assets/Uploads/Wehner/3f67aae526/publications_051424.pdf

Publications in 2024 (as of May 14):

1. Michael F. Wehner, James P. Kossin (2024) The Growing Inadequacy of an open-ended Saffir-Simpson Hurricane-Wind Scale in a Warming World. *The Proceedings of the National Academies*. 121 (6) e2308901121 https://doi.org/10.1073/pnas.2308901121
2. Mark D. Risser, William D. Collins, Michael F. Wehner, Travis A. O'Brien, Huanping Huang, Paul A. Ullrich (2024) Anthropogenic aerosols mask increases in US rainfall by greenhouse gases. *Nature Communications*, **15**, 1318 https://doi.org/10.1038/s41467-024-45504-8
3. Michael F. Wehner, Margaret L. Duffy, Mark Risser, Christopher J. Paciorek, Dáithí A. Stone, Pardeep Pall (2024) On the uncertainty of long-period return values of extreme daily precipitation. *Frontiers in Climate* (6) https://doi.org/10.3389/fclim.2024.1343072
4. Xubin Zeng, Lincoln Alves, Marie-Amélie Boucher, Annalisa Cherchi, Charlotte DeMott, A.P. Dimri, Andrew Gettelman, Edward Hanna, Takeshi Horinouchi, Jin Huang, Chris Lennard, Ruby Leung, Yali Luo, Thamban Meloth, Hindumathi Palanisamy, Sara Pryor, Marion Saint-Lu, Stefan P. Sobolowski, Detlef Stammer, Jakob Steiner, Bjorn Stevens, Stefan Uhlenbrook, Michael Wehner, and Paquita Zuidema (2024) Global Precipitation Experiment - A New World Climate Research Programme Lighthouse Activity. *Bulletin of the American Meteorological Society*. https://doi.org/10.1175/BAMS-D-23-0242.1
5. Jiwoo Lee, Peter J. Gleckler, Min-Seop Ahn, Ana Ordonez, Paul Ullrich, Kenneth R. Sperber, Karl E. Taylor, Yann Y. Planton, Eric Guilyardi, Paul Durack, Celine Bonfils, Mark D. Zelinka, Li-Wei Chao, Bo Dong, Charles Doutriaux, Chengzhu Zhang, Tom Vo, Jason Boutte, Michael F. Wehner, Angeline G. Pendergrass, Daehyun Kim, Zeyu Xue, Andrew T. Wittenberg, John Krasting (2024) Objective Evaluation of Earth System Models: PCMDI Metrics Package (PMP) version 3. *Geoscientific Model Development* 17, 3919–3948. https://doi.org/10.5194/gmd-17-3919-2024
6. Yang Zhou, Michael F. Wehner, and William D. Collins (2024) U.S. West Coast Atmospheric River Clusters and Their Key Circulation Patterns. *Communications Earth & Environment* **5**, 187. https://doi.org/10.1038/s43247-024-01368-w

7. Karthik Balaguru, Chuan-Chieh Chang, L. Ruby Leung, Gregory R. Foltz, Samson M. Hagos, Michael F. Wehner, James P. Kossin, Mingfang Ting, Wenwei Xu (2024) A global increase in nearshore tropical cyclone intensification. *Earth's Future*, 12, e2023EF004230. https://doi.org/10.1029/2023EF004230

8. Xueke Li, Michael E. Mann, Michael F. Wehner, Stefan Rahmstorf, Stefan Petri, Shannon Christiansen, Judit Carrillo (2024) Role of atmospheric resonance and land-atmosphere feedbacks as a precursor to the June 2021 Pacific Northwest "Heat Dome" event. *Proceedings of the National Academy of Science.* 121 (4) e2315330121 https://doi.org/10.1073/pnas.2315330121

9. C. J. Paciorek, M.F. Wehner (2024) Comment on 'Five Decades of Observed Daily Precipitation Reveal Longer and More Variable Drought Events Across Much of the Western United States', *Geophysical Research Letters*. 51, e2023GL104550. https://doi.org/10.1029/2023GL104550

10. Peter Larsen, Michael Grussing, Emily Bercos-Hickey, Christine Bidner, Kristina LaCommare; Kirsten Landers, Brenda Mehnert, Christina Patricola, Austin Powell, Michael Spears, Michael Wehner (2024) Weather Effects on the Lifecycle of U.S. Department of Defense Equipment Replacement (WELDER) to appear in *Building and Environment*