

## **Michael F. Wehner**

### Publications

#### **2013**

I.N. Williams, M.S. Torn, W.J. Riley, M.F. Wehner, W.D. Collins, & J.A. Berry (2013) Climate extremes and the stability of land climates and carbon cycles to global warming. To be submitted to *Nature Geoscience*.

Michael Wehner, Prabhat, Kevin Reed, Daithi Stone, William D. Collins, Julio Bacmeister, Andrew Gettleman (2013) Resolution dependence of future tropical cyclone projections of CAM5.1 in the US CLIVAR Hurricane Working Group idealized configurations. To be submitted to *J. Climate*.

M. Zhao, I.M. Held, G. Vecchi, E. Scoccimarro, H. Wang, M. Wehner, Y.-K. Lim, T. LaRow, S. J. Camargo, K. Walsh, S. Gualdi, A. Kumar, S. Schubert, K.A. Reed (2013) Robust direct effect of increasing atmospheric CO<sub>2</sub> concentration on global tropical cyclone frequency - A multi-model inter-comparison. U.S. CliVAR *Variations* Fall 2013, Vol. 11, No. 3, 17-23

Gabriele Villarani, David A. Lavers, Enrico Scoccimarro, Ming Zhao, Michael F. Wehner, Gabriel A. Vecchi, Thomas R. Knutson (2013) Sensitivity of Tropical Cyclone Rainfall to Different Warming Scenarios at the Global Scale. To be submitted to *J. Climate*.

Anne S. Daloz, S.J. Camargo; J.P Kossin; K. Emanuel; J.A. Jonas; D. Kim; T. LaRow; Y.-K. Lim; C.M. Patricola; M. Roberts; E. Scoccimarro; P.L. Vidale; M. Wehner; D. Shaevitz; H. Wang; M. Zhao (2013) Cluster analysis of explicitly and downscaled simulated North Atlantic tropical cyclone tracks. Submitted to *J. Climate*.

Wei-Chen Chen, George Ostrouchov, David Pugmire, Prabhat, Michael Wehner (2013) A Parallel EM Algorithm for Model-Based Clustering Applied to the Exploration of Large Spatio-Temporal Data. To appear in *Technometrics*, DOI: 10.1080/00401706.2013.826146

Julio T. Bacmeister, Richard B. Neale, Cecile Hannay, John Truesdale, Julie Caron, Peter Lauritzen, Andrew Gettelman, Michael Wehner (2013) High-Resolution Climate Simulations using the Community Atmosphere Model (CAM). Submitted to *J. Climate*

John C. H. Chiang, C. Y. Chang and M.F. Wehner (2013) Long-term trends of the Atlantic Interhemispheric SST Gradient in the CMIP5 Historical Simulations, *J. Climate* 26 8628-8640

Dean N. Williams, Charles Doutriaux, Andrew C. Bauer, Aashish Chaudhary, Harinarayan Krishnan, Michael F. Wehner, John M. Patchett, Thomas P. Maxwell, Gerald Potter, George Ostrouchov, Dave Pugmire, Galen M. Shipman, Brian E. Smith,

Chad A Steed, Alexander Pletzer (2013) Climate Science “Big Data” Parallel Analysis: Analyzing Multi-Model Climate Simulation Data. *Submitted to IEEE Transactions on Parallel and Distributed Systems*

Michael F. Wehner, Kevin Reed, Fuyu Li, Prabhat, Julio Bacmeister, Cheng-Ta Chen, Chris Paciorek, Peter Gleckler, Ken Sperber, William D. Collins, Andrew Gettelman, Christiane Jablonowski, Chris Algieri (2013) The effect of horizontal resolution on simulation quality in the Community Atmospheric Model, CAM5.1. Submitted to the *Journal of Modeling the Earth System*.

Richard Smith and Michael Wehner (2013) Influence of Climate Change on Extreme Weather Events, To be submitted to the *Proceedings of the National Academy of Sciences*

Dáithí A. Stone, Christopher J. Paciorek, Prabhat, Pardeep Pall, Michael Wehner (2013) Inferring the anthropogenic contribution to local temperature extremes. To appear in *Proceedings of the National Academy of Sciences*. Published ahead of print March 19, 2013, doi:10.1073/pnas.1221461110

Malcolm Potts, Eliya Zulu, Michael Wehner, Federico Castillo, Courtney Henderson (2013) OASIS: Organizing to Advance Solutions in the Sahel, A report of the conference hosted by the University of California, Berkeley and the African Institute for Development Policy held in Berkeley on September 21, 2012.

Brian Smith, Daniel M. Ricciuto, Peter E. Thornton, Galen Shipman, Chad Steed, Dean Williams, Michael Wehner (2013) ParCAT: Parallel Climate Analysis Toolkit. To appear in *Procedia Computer Science: 2013 International Conference on Computational Science*.

V. V. Kharin, F. W. Zwiers, X. Zhang, M. Wehner (2013) Changes in temperature and precipitation extremes in the CMIP5 ensemble, *Climatic Change* **119**, 345-357. doi:10.1007/s10584-013-0705-8.

Michael F. Wehner (2013) Very extreme seasonal precipitation in the NARCCAP ensemble: Model performance and projections. *Climate Dynamics* **40**, 59-80. DOI: 10.1007/s00382-012-1393-1

T.C. Peterson, R. Heim, R. Hirsch, D. Kaiser, H. Brooks, N.S. Diffenbaugh, R. Dole, J. Giovannetone, K. Guiguis, T.R. Karl, R.W. Katz, K. Kunkel, D. Lettenmaier, G. J. McCabe, C.J. Paciorek, K. Ryberg, S. Schubert, V.B.S. Silva, B. Stewart, A.V. Vecchia, G. Villarini, R.S. Vose, J. Walsh, M. Wehner, D. Wolock, K. Wolter, C.A. Woodhouse and D. Wuebbles (2013) Monitoring and Understanding Changes in Heatwaves, Coldwaves, Floods and Droughts in the United States: State of Knowledge, *Bulletin of the American Meteorological Society* June 2013, 821-834, DOI: 10.1175/BAMS-D-12-00066.1, Supplement DOI: 10.1175/BAMS-D-12-00066.2

K.E. Kunkel, T.R. Karl, H. Brooks, J. Kossin, J. Lawrimore, D. Arndt, L. Bosart, D. Changnon, S. Cutter, N. Doesken, K. Emanuel, P.Ya. Groisman, R.W. Katz, T. Knutson, J. O'Brien, C. Paciorek, T. Peterson, K. Redmond, D. Robinson, J. Trapp, R. Vose, S. Weaver, M. Wehner, K. Wolter, D. Wuebbles (2013) Monitoring and Understanding Trends in Extreme Storms: State of Knowledge, To appear in the *Bulletin of the American Meteorological Society*. 10.1175/BAMS-D-11-00262.1

Seung-Ki Min, Xuebin Zhang, Francis Zwiers, Hideo Shiogama, Yu-Shiang Tung, and Michael Wehner (2013) Multi-Model Detection and Attribution of Extreme Temperature Changes, *Journal of Climate* **26**, 7430–7451. doi: <http://dx.doi.org/10.1175/JCLI-D-12-00551.1>

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Fuyu Li, William D. Collins, Michael F. Wehner, Ruby L. Leung (2013), Hurricanes in an aquaplanet world: implications of the impacts of external forcing and model horizontal resolution, . *Journal of Advances in Modeling Earth Systems*, 5, doi:[10.1002/jame.20020](https://doi.org/10.1002/jame.20020).

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## **2012**

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Chapter 8 in *Extremes in a Changing Climate: Detection, Analysis and Uncertainty*, A. AghaKouchak et al. (eds.), Water Science and Technology Library 65, DOI 10.1007/978-94-007-4479-0 8, Springer  
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B.D. Santer, Carl Mears , Charles Doutriaux , Peter Gleckler , Tom Wigley , Nathan Gillett , Detelina Ivanova , Thomas Karl , John Lanzante , Gerald Meehl , Peter Stott , Karl Taylor , Peter Thorne , Michael Wehner, Frank Wentz (2011) Separating Signal and Noise in Atmospheric Temperature Changes: The Importance of Timescale, *Journal of Geophysical Research-Atmospheres* 116, D22105, doi:10.1029/2011JD016263

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