Curriculum Vitae | Noah S. Diffenbaugh | May 20, 2019

1. ACADEMIC HISTORY Colleges and universities attended	
Ph.D., Earth Sciences, University of California, Santa Cruz	2000 - 2003
M.S., Earth Systems, Stanford University	1996 – 1997
B.S., Earth Systems, Stanford University	1992 – 1997
Scholarships and honors	
ARCS Foundation Scholar	2002 - 2003
University of California Regents Fellowship	2000 - 2001
Post-doctoral and residency training Postgraduate Research Earth Scientist, University of California, Santa Cruz	2003 – 2004
	2003 – 2002
Other study and research opportunities Short Term Visitor, Abdus Salam International Centre for Theoretical Physics	2006 – 2010
2. EMPLOYMENT HISTORY	
Kara J Foundation Professor, School of Earth, Energy and Environmental Sciences	2017 –
Kimmelman Family Senior Fellow, Woods Institute for the Environment	2017 –
Professor, Earth System Science, Stanford University	2016 –
Senior Fellow, Woods Institute for the Environment, Stanford University	2013 -
Associate Professor, (Environmental) Earth System Science, Stanford University	2013 - 2016
Center Fellow, Woods Institute for the Environment, Stanford University	2009 - 2013
Assistant Professor, Environmental Earth System Science, Stanford University	2009 - 2013
Associate Professor of Earth and Atmospheric Sciences, Purdue University	2008 - 2009
Assistant Professor of Earth and Atmospheric Sciences, Purdue University	2004 - 2008
Postgraduate Research Earth Scientist, University of California, Santa Cruz	2003 - 2004
Graduate Research and Teaching Assistant, University of California, Santa Cruz	2000 - 2003
Science Teacher, Volleyball Coach and Athletic Director, Mt. Madonna School	1997 – 2000
3. PUBLIC AND PROFESSIONAL SERVICE	
Selected professional appointments	
Editor-in-Chief, Geophysical Research Letters	2015 - 2018
Editor, Geophysical Research Letters	2009 - 2019
Member, State of California AB 2800 Climate Safe Infrastructure Working Group	2017 - 2018
Lead Author, Working Group II, Intergovernmental Panel on Climate Change	2010 - 2014
Member, National Academy of Sciences Ad Hoc Committee on Effects of Provisions	2010 201
in the Internal Revenue Code on Greenhouse Gas Emissions	2011 - 2013
Member, "What We Know" Panel on Climate Change, AAAS	2013 - 2014
Science Advisory Board, Climate Research Program, Lawrence Livermore National Lab	
Science Advisory Board, Climate Change Science Institute, Oak Ridge National Lab	2010 - 2013
Members Nominating Committee, University Corporation for Atmospheric Research	2017 - 2019
Members Nominating Committee, University Corporation for Atmospheric Research	2017 – 2013
Governance Task Group, University Corporation for Atmospheric Research	2013 $2014 - 2017$
Member Representative, University Corporation for Atmospheric Research	2014 – 2017
Executive Committee, Atmospheric Sciences Section, American Geophysical Union	2010 - 2008 - 2012
	2000 - 2012
Member, Terrestrial Ecosystems and Climate Policy Working Group,	2008 2010
National Center for Ecological Analysis and Synthesis	2008 - 2010
Interim Director, Purdue Climate Change Research Center Editorial Advisory Board, <i>Eos</i> , American Geophysical Union	2008 - 2009 $2008 - 2009$
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Selected university service (at Stanford University)

Member, Faculty Senate	2018 - 2019
Member, Academic Council Committee on Graduate Studies	2018 - 2021
Member, Faculty Advisory Committee on Research Computing	2016 - 2018
Faculty Moderator, Three Books Program	2016 - 2017
Director of Graduate Studies, Department of Earth System Science	2015 - 2019
Earth Council, School of Earth, Energy and Environmental Science	2014 – 2015, 2016 –
Member, Undergraduate Advisory Council (UGAC)	2014 - 2018
Member, Faculty Advisory Board, Introductory Seminar Program	2013 - 2016
Resident Fellow, West Florence Moore Hall	2013 - 2014
Faculty Director, Goldman Honors Program	2012 - 2015
Affiliated Faculty, Precourt Institute for Energy	2011 –
Affiliated Faculty, Emmett Interdisciplinary Program in Environment	
and Resources (E-IPER)	2009 –

Selected public outreach

Science Lecture, Ski and Snowboard Hall of Fame Induction Week, April 13, 2018, Olympic Valley, CA

32nd Annual Timothy O'Leary Distinguished Scientist Public Lecture, Gonzaga University, February 12, 2018, Spokane, WA

Keynote Lecture, Operation Sierra Storm, January 23, 2018, Lake Tahoe, NV

2017 Milken Institute Global Conference, May 2, 2017, Los Angeles, CA

2017 California Climate Change Symposium, January 25-26, 2017, Sacramento, CA.

Briefing for California State Legislators, January 25, 2017, Sacramento, CA.

Innovation Center for Earth Sciences Workshop Fall 2015, United States Geological Survey, December 11, 2015, Menlo Park, CA.

First Hearing of the California State Assembly Select Committee on Water Consumption and Alternative Sources, November 17, 2015, Sacramento, CA.

A Climate Change Dialog: Risks and Opportunities for the Oil and Gas Industry, Engineering Founder Societies project on Technologies for Carbon Management, November 16, 2015, Sugar Land, TX.

Climate Science, 50 Years Later: Commemorating the 50th Anniversary of the First Official Climate-Change Warning to a U.S. President, AAAS and the Carnegie Institution for Science, October 29, 2015, Washington, DC.

Expert Presentation to the Study Committee for Extreme Weather Events and Climate Change Attribution, National Academy of Sciences Board on Atmospheric Sciences and Climate, October 12, 2015.

30th Biennial Groundwater Conference & 24th Groundwater Resource Association Annual Meeting, October 6-7, 2015, Sacramento, CA.

Congressional Briefing for U.S. Representative Michael Honda, Ranking Member of Appropriations Subcommittee on Commerce, Science and Justice, September 17, 2015, Washington, D.C.

2015 California Climate Change Symposium, August 24-25, 2015, Sacramento, CA.

2015 Aspen Ideas Festival, June 27-29, 2015, Aspen, CO.

Briefing for the State of California Interagency Drought Task Force, March 26, 2015, Sacramento, CA.

[next] Conference, TTI/Vanguard Advanced Technology Conference Series, December 5, 2014, San Francisco, CA.

AAAS/RFF Workshop on The Economic and Financial Risks of a Changing Climate: Insights from Leading Experts, November 12, 2014, Washington, D.C.

Responding and Adapting to Climate Change, World Affairs Council, June 17, 2014, San Francisco, CA

Panelist, Forum on Climate Change, Safe Climate Caucus, U.S. House of Representatives, September 17, 2013, Washington, D.C.

Briefing for Indiana Congressional Delegation, April 27, 2009, Washington, D.C.

Briefing for Indiana Governor Mitch Daniels, April 20, 2009, Indianapolis, IN.

Keynote Lecture, Legislative Agricultural Chairs Summit '07, January 26-28, 2007, Washington, D.C.

Peer reviewer

Proposal Panelist: *DOE* (National Lab Climate Change Scientific Focus Areas; Regional Models for Climate Change Integrated Assessment; Climate and Earth System Modeling); *NASA* (Modeling, Analysis, and Prediction); *NOAA* (Climate Prediction Program for the Americas); NSF (CDI-II); *U.S. CLIVAR* (Drought in Coupled Models Project)

Proposal Referee: AAAS (EPSCoR; Canon National Parks Science Scholars Program); Department of Energy (NICCRC; Regional and Global Climate Modeling); Government of Chile (FONDECYT); National Science Foundation (Climate and Large-Scale Dynamics, Earth System History, Ecosystem Studies Program, Geography and Regional Science, Instrumentation and Facilities, Office of Polar Programs, Marine Geology and Geophysics, Paleoclimate, Paleo Perspectives on Climate Change, Partnerships for International Research and Education, Sedimentary Geology and Paleobiology)

Journal Manuscript Referee: Agricultural and Forest Meteorology, Atmospheric Research, Bulletin of the American Meteorological Society, Climate Dynamics, Climate Research, Climatic Change, Earth Interactions, Eos, Geology, Geophysical Research Letters, Global and Planetary Change, International Journal of Climatology, International Journal of Environmental Research and Public Health, Journal of Applied Meteorology and Climatology, Journal of Climate, Journal of Geophysical Research — Atmospheres, Journal of Hydrometeorology, Limnology and Oceanography, Meteorological Applications, Nature, Nature Climate Change, Paleoceanography, Proceedings of the National Academy of Sciences, Quaternary International, Quaternary Research, Quaternary Science Reviews, Theoretical and Applied Climatology, Water Resources Management.

Book Referee: Economics in the Climate Casino; Climate Impact Hotspots: Key Vulnerable Regions and Climate Change

Report Referee: California Energy Commission, State of Washington

Workshops and conference sessions

Organizing Committee, Columbia University Workshop on Correlated Extremes, New York, NY, May 29-31, 2019.

Scientific Steering Committee, Aspen Global Change Institute workshop, "Impact Relevance and Usability of High Resolution Climate Modeling and Datasets," Aspen, CO, August 2-7, 2015.

Organizing Committee, Los Alamos Institute for Advanced Studies Workshop on Simulating the Spatial-Temporal Patterns of Anthropogenic Climate Change, Santa Fe, NM, August 3-5, 2011.

Organizing Committee, Climate Change Impacts and Integrated Assessment Workshop XVI, Snowmass,

- CO, July 27-August 4, 2011.
- Organizing Committee, Climate Change Modeling and Scaling Workshop for the U.S. National Climate Assessment, Washington, D.C., December 8-10, 2010.
- Co-Director, Fifth ICTP Workshop on the Theory and Use of Regional Climate Models, Trieste, Italy, May 31-June 11, 2010.
- Co-Chair, *Paleoceanography and Paleoclimatology General Contributions*, 2009 American Geophysical Union Joint Assembly, Toronto, Canada, May 24-29, 2009.
- Co-Chair, Transitioning Out of the Mid-Holocene Climate: An Evaluation of Land-Ocean Proxy Records and Model Simulations, AGU Fall Meeting, San Francisco, CA, December 15-19, 2008.
- Co-Chair, *Regional-Scale Forcing of Climate*, AGU Fall Meeting, San Francisco, CA, December 15-19, 2008.
- Co-Chair, Climate of the Last Glacial-Interglacial Cycle: New Insights From Models and Data, AGU Fall Meeting, San Francisco, CA, December 8-12, 2003.

4. POST-DEGREE HONORS AND AWARDS

Selected Awards

Timothy J. O'Leary, S. J., Distinguished Scientist, Gonzaga University	2018
Stanford Leadership Academy, Stanford University	2018 - 2019
Faculty Scholar, Stanford University	2015 - 2016
Stanford Fellow, Stanford University	2013 - 2015
Google Science Communication Fellow	2011
Kavli Fellow, U.S. National Academy of Sciences	2010, 2016
NSF CAREER Award	2010 - 2015
Terman Fellowship, Stanford University	2009 - 2012
University Faculty Scholar, Purdue University	2009
James R. Holton Award, American Geophysical Union	2006

Funded proposals

- A Multi-Model, Multi-Scale Research Program in Stressors, Responses, and Coupled Systems Dynamics at the Energy-Water-Land Nexus, Department of Energy, August 1, 2016 to July 31, 2021. (co-PI)
- Extreme Event Analysis Tool in Support of UN Paris Agreement, Stanford Woods Institute for the Environment, October 1, 2016 to September 30, 2018. (PI)
- Secure Analytics on the Internet of Things, Stanford Data Science Initiative, February 1, 2015 to January 31, 2016. (co-PI)
- Assessing Climate Change Impact on Transportation Infrastructure Vulnerability and Sustainability, Stanford Woods Institute for the Environment, October 1, 2013 through September 30, 2015. (co-PI)
- Social vulnerability and climatic drivers of enteric disease in rural Ecuador, National Institutes of Health, September 1, 2011 to August 31, 2012. (co-PI)
- Large-scale solar energy conversion: Land and water impacts, Precourt Institute for Energy/TomKat Center for Sustainable Energy, Stanford University, September 1, 2011 to August 31, 2013. (co-PI)
- Holocene Climate Change in Southwestern Patagonia: New Insights from Large Lake Paleolimnology, National Science Foundation, February 1, 2011 to January 31, 2014. (co-PI)
- Research in Integrated Assessment Inter-Model Development, Testing and Diagnostics, Department of Energy, September 1, 2010 to July 31, 2016. (co-PI)

- CAREER: Dynamics and Impacts of Fine-Scale Climate Change, National Science Foundation, Award #0955283, August 1, 2010 to July 31, 2015. (PI)
- The Impact of Climate and Climate Change on West Nile Virus Transmission, National Institutes of Health, 1R01AI090159-01, July 15, 2010 to June 30, 2014. (Subcontract)
- The Science and Policy of Global Climate Change: Professional Development of K-12 Teachers, National Aeronautics and Space Administration, Grant #NNX09AL89G, September 1, 2009 to August 31, 2012. (Co-I)
- Impacts of Climate Change on Wildlife in the Southwest, United States Geological Survey, Award #G10AC00244, September 15, 2009 through September 14, 2012. (Subcontract)
- Impacts of High Resolution Extreme Events on U.S. Energy Demand and CO₂ Emissions in the 21st Century, Department of Energy, Award #DE-SC0001483, September 1, 2009 to August 31, 2011. (PI)
- The Response of Convective Precipitating Storms to Anthropogenically Enhanced Global Radiative Forcing, National Science Foundation, Award #0756624, September 1, 2008 to August 31, 2011. (co-PI)
- Impacts of High Resolution Extreme Events on U.S. Energy Demand and CO₂ Emissions in the 21st Century, Department of Energy, August 15, 2008 to August 14, 2009. (PI)
- Climate Variability and the Poor in Southern and Eastern Africa, The World Bank TFESSD, July 1, 2008 to November 30, 2010. (Co-PI)
- Collaborative Research: Water Balance of Western North America: Dynamics of the Miocene Summer Monsoon, National Science Foundation, Award #0450221, February 15, 2005 to January 31, 2009. (PI)
- Sub-Daily Scale Extreme Precipitation in Future Climate-Change Scenarios: A Pilot Study, National Science Foundation, Award #0402054, February 1, 2006 to January 31, 2009. (Co-PI)
- Collaborative Research: Investigation of Holocene Seasonality and Inter-Annual Variability Along the California Current System, National Science Foundation, Award #0402054, May 1, 2004 to April 30, 2008. (PI)
- Collaborative Research: Surface-Atmosphere Feedbacks and Holocene Climate Variations in Eastern North America: Linkages, Impacts, and Governing Mechanisms, National Science Foundation, Award #0315677. Subcontract with University of California, Santa Cruz, July 1, 2004 to September 30, 2007. (Subcontract)

Selected recent invited academic seminars and presentations

154th National Academy of Sciences Annual Meeting	2017
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Geophysical Fluid Dynamics Laboratory, NOAA/Princeton University	2017
Introductory Speaker, US Kavli Frontiers of Science, National Academy of Sciences	2016
Geosciences Distinguished Lecture, National Science Foundation	2016
Scripps Institution of Oceanography, University of California – San Diego	2016
MMM Distinguished Lecture, National Center for Atmospheric Research	2016
Ocean and Climate Physics Seminar, Lamont Doherty Earth Observatory, Columbia University	2015
Atmospheric Science Seminar, Massachusetts Institute of Technology	2014
Sustainable Development Seminar, Columbia University	2014
Harvard Humanitarian Action Summit, Harvard University	2013
Lamont Workshop on Severe Convection and Climate, Columbia University	2013
Yale Climate and Energy Institute Workshop on Climate and Human Disease, Yale University	2013
Center on Global Change Seminar, Duke University	2012

5. COMPLETE LIST OF SCHOLARLY PUBLICATIONS AND OTHER CREATIVE WORKS *Peer-reviewed publications*

(underline denotes advisee; * denotes student thesis committee)

Total papers in print/press = 113

Google Scholar: https://scholar.google.com/citations?user=L1-cVvoAAAAJ&hl=en

ResearcherID: https://publons.com/researcher/2508066/noah-s-diffenbaugh/

- 2019 <u>Gonzales, K.R., D.L. Swain, K.M. Nardi, E.A. Barnes and **N.S. Diffenbaugh**, Recent warming of landfalling atmospheric rivers along the west coast of the United States, *JGR-Atmospheres*, doi: 10.1029/2018JD029860, 2019. (forthcoming)</u>
 - **Diffenbaugh, N.S.** and M. Burke, Global warming has increased economic inequality between countries, *PNAS*, https://doi.org/10.1073/pnas.1816020116, 2019.
 - Duffy, P.B.[†], C.B. Field[†], **N.S. Diffenbaugh**[†], S.C. Doney, Z. Dutton, S. Goodman, L. Heinzerling, S. Hsiang, D.B. Lobell, L.J. Mickley, S. Myers, S.M. Natali, C. Parmesan, S. Tierney and A.P. Williams, Strengthened scientific support for the Endangerment Finding for atmospheric greenhouse gases, *Science*, 363(6427), eaat5982, 2019. ([†] contributed equally)
- 2018 <u>Herrera-Estrada, J., N.S. Diffenbaugh</u>, F. Wagner, A. Craft and J. Sheffield, Response of electricity sector air pollution emissions to drought conditions in the western United States, *Environmental Research Letters*, 13(12), 124032, 2018.
 - <u>Sarhadi, A., M.C.</u> Ausin, M.P. Wiper, <u>D. Touma</u> and **N.S. Diffenbaugh**, Multi-dimensional risk in a non-stationary climate: joint probability of increasingly severe warm and dry conditions, *Science Advances*, 4(11), eaau3487, 2018.
 - <u>Singh, D.</u>, M. Bollasina, M. Ting and **N.S. Diffenbaugh**, Disentangling the influence of local and remote anthropogenic aerosols on South Asian Monsoon daily rainfall characteristics, *Climate Dynamics*, https://doi.org/10.1007/s00382-018-4512-9, 2018.
 - Goss, M., S. Lee, S.B. Feldstein and **N.S. Diffenbaugh**, Can ENSO-like convection force an ENSO-like extratropical response on subseasonal timescales?, *Journal of Climate*, 31(20), 8339–8349, 2018.
 - <u>Touma, D.</u>, A.M. Michalak, <u>D.L. Swain</u> and **N.S. Diffenbaugh**, Characterizing the spatial scales of extreme daily precipitation in the United States, *Journal of Climate*, 31(19), 8023–8037, 2018.
 - Burke, M., W.M. Davis and **N.S. Diffenbaugh**, Large potential reduction in economic damages under UN mitigation targets, *Nature*, 557(7706), 549–553, 2018.
 - **Diffenbaugh, N.S.**, <u>D. Singh</u> and <u>J.S. Mankin</u>, Unprecedented climate events: historical changes, aspirational targets, and national commitments, *Science Advances*, 4(2), eaao3354, 2018.
 - Li, C., Y. Fang, K. Caldeira, X. Zhang, **N.S. Diffenbaugh** and A.M. Michalak, Widespread persistent changes to temperature extremes occurring earlier than predicted, *Nature Scientific Reports*, 8, 1007, doi:10.1038/s41598-018-19288-z, 2018.
- 2017 <u>Swain, D.L., D. Singh, D.E. Horton, J.S. Mankin, T.C. Ballard, and **N.S. Diffenbaugh**, Remote linkages to anomalous winter atmospheric ridging over the northeastern Pacific, *Journal of Geophysical Research Atmospheres*, 122(22), 12,194–12,209, 2017.</u>

- **Diffenbaugh, N.S.**, <u>D. Singh, J.S. Mankin, D.E. Horton, D.L. Swain, D. Touma</u>, A. Charland, Y. Liu, M. Haugen*, M. Tsiang* and B. Rajaratnam, Quantifying the influence of global warming on unprecedented extreme climate events, *Proceedings of the National Academy of Sciences*, 114(19), 4881–4886, 2017.
- <u>Flint, M.M.</u>, O. Fringer, S.L. Billington, D. Freyberg, and **N.S. Diffenbaugh**, Historical analysis of hydraulic bridge collapses in the continental United States, *Journal of Infrastructure Systems*, DOI: 10.1061/(ASCE)IS.1943-555X.0000354, 2017.
- Skinner C.B., C.J. Poulsen, R. Chadwick, N.S. Diffenbaugh and R.P. Fiorella, The role of plant CO₂ physiological forcing in shaping future daily-scale precipitation, *Journal of Climate*, 30(7), 2319–2340, 2017.
- Mankin, J.S., D. Vivrioli, M.M. Mekonnen, A.J. Hoekstra, R.M. Horton, J.E. Smerdon and N.S. **Diffenbaugh**, Influence of internal variability on population exposure to hydroclimatic changes, *Environmental Research Letters*, 12(4), 044007, 2017.
- Paull, S.H., <u>D.E. Horton</u>, <u>M. Ashfaq</u>, D. Rastogi, L.D. Kramer, **N.S. Diffenbaugh** and A.M. Kilpatrick, Drought and immunity determine the intensity of West Nile virus epidemics and climate change impacts, *Proceedings of the Royal Society B*, 284, 1848, DOI: 10.1098/rspb.2016.2078, 2017.
- 2016 **Diffenbaugh, N.S.** and A. Charland, Probability of emergence of novel temperature regimes at different levels of cumulative carbon emissions, *Frontiers in Ecology and the Environment*, 14(8), 418-423, 2016.
 - Singh, D.S., D.L. Swain, J.S. Mankin, D.E. Horton, L.N. Thomas, B. Rajaratnam and N.S. **Diffenbaugh**, Recent amplification of the North American winter temperature dipole, *Journal of Geophysical Research Atmospheres*, 121(17), 9911-9928, doi:10.1002/2016JD025116, 2016.
 - Davis, S.J. and **N.S. Diffenbaugh**, Dislocated interests and climate change, *Environmental Research Letters*, 11(6), 61001, 2016.
 - Alden, C.B., J.B. Miller, L.V. Gatti, M.M. Gloor, K. Guan, A.M. Michalak, I.T. van der Laan-Luijkx, D. Touma, A. Andrews, L.S. Basso, C.S.C. Correia, L.G. Domingues, J. Joiner, M.C. Krol, A.I. Lyapustin, W. Peters, Y.P. Shiga, K. Thoning, I.R. van der Velde, T.T. van Leeuwen, V. Yadav and N.S. Diffenbaugh, Regional atmospheric CO2 inversion reveals seasonal and geographic differences in Amazon net biome exchange, *Global Change Biology*, doi:10.1111/gcb.13305, 2016.
 - Swain, D.L., D.E. Horton, D. Singh and N.S. Diffenbaugh, Trends in atmospheric patterns conducive to seasonal precipitation and temperature extremes in California, *Science Advances*, 2(4), e1501344, 2016.
- 2015 Liu, J.*, T. Hertel, **N.S. Diffenbaugh**, M. Delgado and <u>M. Ashfaq</u>, Future property damage from flooding: Sensitivities to economy and climate change, *Climatic Change Letters*, 132(4), 741-749, 2015.
 - Anderegg, W.R.L.* and **N.S. Diffenbaugh**, Observed and projected climate trends and hotspots across the National Ecological Observatory Network (NEON) regions, *Frontiers in Ecology and the Environment*, 13(10), 547-552, 2015.
 - Mankin, J.S., D. Viviroli, <u>D. Singh</u>, A.Y. Hoekstra, and **N.S. Diffenbaugh**, The potential for snow to supply human water demand in the present and future, *Environmental Research Letters*, 10(11), 114016, 2015.
 - Rajaratnam, B., J. Romano, M. Tsiang*, and **N.S. Diffenbaugh**, Debunking the climate hiatus, *Climatic Change*, 133(2), 129-140, 2015.

- Swain, D.L., B. Lebassi-Habtezion, and N.S. Diffenbaugh, Evaluation of non-hydrostatic simulations of Northeast Pacific atmospheric rivers and comparison to in-situ observations, *Monthly Weather Review*, 43, 3556-3569, 2015.
- LoPresti, A., A. Charland, D. Woodward, J. Randerson, **N.S. Diffenbaugh** and S.J. Davis, Rate and velocity of climate change caused by cumulative carbon emissions, *Environmental Research Letters*, 10, 095001, 2015.
- **Diffenbaugh, N.S.**, <u>D.L. Swain</u> and <u>D. Touma</u>, Anthropogenic warming has increased drought risk in California, *Proceedings of the National Academy of Sciences*, 112(13), 3931-3936, 2015.
- Horton, D.E., N.C. Johnson, <u>D. Singh</u>, <u>D.L. Swain</u>, B. Rajaratnam and **N.S. Diffenbaugh**, Contribution of changes in atmospheric circulation patterns to extreme temperature trends, *Nature*, 522, 465–469, 2015.
- <u>Mankin, J.S.</u> and **N.S. Diffenbaugh**, Influence of temperature and precipitation variability on near-term snow trends, *Climate Dynamics*, 45(3), 1099-1116, 2015.
- <u>Touma, D., M. Ashfaq, M. Nayak, S.-H. Kao and N.S. Diffenbaugh, A multi-model and multi-index evaluation of drought characteristics in the 21st century, *Journal of Hydrology*, 526, 196-207, 2015.</u>
- Kao, S.-C., M.J. Sale, M. Ashfaq, N.S. Diffenbaugh, R. Martinez, D. Kaiser and Y. Wei, The potential climate change impacts on U.S. federal hydropower generation, *Energy*, 80, 239-250, 2015.
- 2014 Li, C., E. Sinha, D. E. Horton, N. S. Diffenbaugh and A. M. Michalak, Joint bias correction of temperature and precipitation in climate model simulations, *Journal of Geophysical Research Atmospheres*, 119, 13,153–13,162, doi:10.1002/2014JD022514, 2014.
 - Swain, D.L, M. Tsiang*, M. Haugen, D. Singh, A. Charland, B. Rajaratnam and N.S. **Diffenbaugh**, The extraordinary California drought of 2013-2014: character, context, and the role of climate change [in "Explaining Extremes of 2013 from a Climate Perspective"]. *Bulletin of the American Meteorological Society*, 95 (9), S3–S7, 2014.
 - Singh, D., D.E. Horton, M. Tsiang*, M. Haugen, M. Ashfaq, R. Mei, D. Rastogi, N.C. Johnson, A. Charland, B. Rajaratnam and **N.S. Diffenbaugh**, Severe precipitation in Northern India in June 2013: causes, historical context, and changes in probability [in "Explaining Extremes of 2013 from a Climate Perspective"]. *Bulletin of the American Meteorological Society*, 95 (9), S58–S61, 2014.
 - Hawkins, E., B. Anderson, **N. Diffenbaugh**, I. Mahlstein, R. Betts, G. Hegerl, M. Joshi, R. Knutti, D. McNeall, S. Solomon, R. Sutton, J. Syktus and G. Vecchi, Uncertainties in the timing of unprecedented climates, *Nature*, 511, E3–E5, doi:10.1038/nature13523, 2014.
 - <u>Horton, D.E., C.B. Skinner, D. Singh</u> and **N.S. Diffenbaugh**, Occurrence and persistence of future atmospheric stagnation events, *Nature Climate Change*, 4(8), 698-703, 2014.
 - <u>Verma, M.</u>, T.W. Hertel and **N.S. Diffenbaugh**, Market-oriented ethanol and corn-trade policies can reduce climate-induced US corn price volatility, *Environmental Research Letters*, 9, 064028, doi:10.1088/1748-9326/9/6/064028, 2014.
 - Scherer, M. and **N.S. Diffenbaugh**, Transient 21st century changes in daily-scale temperature extremes in the United States, *Climate Dynamics*, 42(5), 1383-1404, 2014.
 - Villanueva-Birriel, C.*, Lasher-Trapp, S., R.J. Trapp, and **N.S. Diffenbaugh**, Sensitivity of the warm rain process in convective clouds to regional trends in tropospheric warming in the contiguous U.S., *Journal of Aerosols Clouds and Radiation*, 1, 1-17, 2014.

- <u>Singh, D.</u>, M. Tsiang*, B. Rajaratnam and **N.S. Diffenbaugh**, Observed changes in extreme wet and dry spells during the South Asian summer monsoon season, *Nature Climate Change*, doi: 10.1038/nclimate2208, 2014.
- Skinner, C.B. and N.S. Diffenbaugh, Projected changes in African easterly wave intensity and track in response to greenhouse forcing, *Proceedings of the National Academy of Sciences*, doi:10.1073/pnas.1319597111, 2014.
- **Diffenbaugh, N.S.,** D.A. Stone, P. Thorne, F. Giorgi, B.C. Hewitson, R.G. Jones, and G.J. van Oldenborgh, Cross-chapter box on the regional climate summary figures. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 137-141, 2014.
- Romero-Lankao, P., J.B. Smith, D.J. Davidson, N.S. Diffenbaugh, P.L. Kinney, P. Kirshen, P. Kovacs, and L. Villers Ruiz, North America. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Barros, V.R., C.B. Field, D.J. Dokken, M.D. Mastrandrea, K.J. Mach, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1439-1498, 2014.
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