DEEPTI SINGH

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Washington State University, Vancouver
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Education

Stanford University, Stanford, California,USA

Ph.D., Environmental Earth System Science, Sep 2010 - Sep 2015

Dissertation Topic: "Climate Extremes in a Warming World: Historical Trends, Physical Causes, and Response to Increasing Anthropogenic Emissions"
Advisor: Dr. Noah S. Diffenbaugh

Purdue University, West Lafayette, Indiana, USA

M.S.E., Aeronautics and Astronautics, Sep 2008 - Aug 2010

Dissertation Topic: "Study of Surrogates for Conventional and Synthetic Aviation Jet Fuels"
Advisor: Dr. Li Qiao

Pune University, Pune, Maharashtra, India

B.E., Mechanical Engineering (Distinction), Aug 2002 - Jul 2006

Research Interests

Climate and earth system dynamics, tropical dynamics, global hydrological cycle, human-climate interactions, human vulnerability and adaptation, sustainable and alternative energy solutions, science education.

Professional Appointments

Assistant Professor, June 2018-present, *School of the Environment*, Washington State University Vancouver, WA, USA

Lamont Postdoctoral Research Fellow, Oct 2015-May 2018, *Lamont Doherty Earth Observatory*, Columbia University, NY, USA

Research Assistant, Sep 2010 - Sep 2015, *Department of Environmental Earth System Science*, Stanford University, Stanford, CA, USA

Teaching Assistant, Fall 2011, Fall 2012, Winter 2014, Summer 2015, *Department of Environmental Earth System Science*, Stanford University, Stanford, CA, USA

Research Assistant, Aug 2008 - Aug 2010, *Department of Aeronautics and Astronautics*, Purdue University, IN, USA

Research Engineer, Apr 2007 - May 2008, *Aerospace Engineering Department*, Indian Institute of Technology, Bombay, India

Research and Development Engineer, Jul 2006 - Nov 2007, *Forbes Marshall*, Pune, India

Honors and Awards

AGU 2018 Editor's Citation for Excellence in Refereeing, *Geophysical Research Letters*, 2019

Grist 50 Fixers, *Grist*, 2019

New Faculty Seed Grant, *Washington State University*, 2019

Travel Grant for Workshop on Arctic Change and Its influence on Mid-Latitude Climate and Weather, *U.S. CLIVAR*, 2017

Lamont Postdoctoral Fellowship, *Lamont Doherty Earth Observatory*, 2015-2017

Kavli Frontiers of Science Fellow, *U.S. National Academy of Sciences*, 2015

Gerald J. Lieberman Fellowship, *Stanford University*, 2014-2015

Graduate Student Award for Scholarly and Research Achievement, Department of Environmental Earth System Science, *Stanford University*, 2014

Wagner Memorial Award for Women in Atmospheric Sciences (2nd Place), *Desert Research Institute*, 2014

Best Presentation, Stanford School of Earth Sciences Research Review, *Stanford University*, 2014

Travel Grant for Workshop on Understanding Climate Change from Data, *National Center for Atmospheric Research (NCAR)*, 2014

ThinkSwiss Travel Fellowship, *Swiss Government*, 2013

Rising Environment Leaders Program Fellow, Woods Institute for the Environment, *Stanford University*, 2012

Donath Honors Fellowship, *Stanford University*, 2011-2013

Best Poster, Stanford School of Earth Sciences Research Review, *Stanford University*, 2011

Travel Award for Community Earth System Model (CESM) tutorial, *NCAR*, 2011

Travel Award for Annual Community Climate System Model (CCSM) workshop, *NCAR*, 2011

Graduate Women in Engineering Travel Award, *Purdue University*,2009

Best B.E Thesis, Society of Automotive Engineers, *Western India Section*, 2006

Subroto Memorial Scholarship for Undergraduate Education, *Indian Air Force Benevolent Association*, 2002-2006

External Funding

Lamont-Doherty Earth Observatory Fellowship, Columbia University, *2015-2017*, ($124,000), PI - **D. Singh**

Assessing Farmer Vulnerability in India to Increasing Risks from Climate Extremes Earth Institute Cross-Cutting Initiative Grant, Columbia University, *2015-2016*, ($23,000), PI - **D. Singh**, co-PIs R. DeFries, M. Ting, and J. Mankin (Columbia University)

Investigating the Temporal Characteristics of Climate Variability Relevant to Human Systems, McGee Research Grant, School of Earth Sciences, Stanford University, *2014*, ($4,000) PI - **D. Singh**

Courses

SOE 285: The Science and Policy of Climate Change
Spring 2019

SOE 592: Impacts of Climate Change on Natural and Human Systems
Fall 2019

Manuscripts in Review/Revision

*__D. Singh__, A. Karembelas, K.F. Davis, A. Chhatre, P. Kinney, and R. DeFries, "A systems perspective on assessing the compound human health impacts of climate change, air quality, and agriculture", *(Nature Communications)*

Publications (* indicates publications accepted since June 2018)

*K.F. Davis, A. Chhatre, N.D. Rao, **D. Singh**, S.G. Jerath, A. Mridul, M Poblete-Cazenave, N. Pradhan, R. S. DeFries, "Beyond the Green Revolution: Balancing multiple objectives for sustainable cereal production", *In Press*, PNAS

*__D. Singh__, "Implications of a varying observational network for accurately estimating recent climate trends", *(Invited Commentary) Geophysical Research Letters*, 46, 10, 5430-5435, *2019*

*A. Seth, A. Giannini, S. A. Rauscher, S. Bordoni, **D. Singh**, and S. J. Camargo, "Monsoon Responses to Climate Changes-Similarities and Differences between Regions", *(Invited Reviewed Article) for Current Climate Change Reports*, 5, 2, 63-79,*2019*

*K.F. Davis, A. Chhatre, N.D. Rao, **D. Singh**, and R. DeFries,"Sensitivity of Grain Yields to Historical Climate Variability", *Environmental Research Letters*, 14, 6, *2019*

*D. Bishop, A. P. Williams, R. Seager, R., A.M. Fiore, B. I. Cook, J.S. Mankin, **D. Singh**, J.E. Smerdon, and M.P. Rao, "Investigating the causes of increased 20th century precipitation over the southeastern United States", *Journal of Climate*, 32, 575?590, *2019*

*__D. Singh__, S. Ghosh, and M.K. Roxy, "Indian Summer Monsoon: Extreme Events, Historical Changes and Role of Anthropogenic Forcings", *(Invited Review Article) for WIREs Climate Change*, 10, 2, e571, *2019*

*__D. Singh__, 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*, 52, 9-10, 6301-6320, *2019*

*__D. Singh__, R. Seager, B.I. Cook, M. Cane, M. Ting, E. Cook, and M. Davis, "Climate and the Great Global Famine of 1876-78", *Journal of Climate*, 31, 9445-9467, *2018*

*__D. Singh__, S. McDermid, B.I. Cook, M. Puma, L. Nazarenko, and M. Kelley, "Distinct influences of land-cover and land-management on seasonal climate", *Journal of Geophysical Research-Atmospheres*, 123, 12,017?12,039, *2018*

*__D. Singh__, M. Ting, and A. Scaife, "California Winter Precipitation Predictability: Insights from the anomalous 2015-16 and 2016-17 seasons", *Geophysical Research Letters*, 45, 9972-9980, *2018*

K.F. Davis, Chiarelli, D.D., Chhatre, A., Richter, B., **Singh, D.**, and R. DeFries, "Alternative cereals can improve water use and nutrient supply in India", *Science Advances*, 4,7, *2018*

Cohen, J., X. Zhang, J. Francis, T. Jung, R. Kwok, J. Overland, P. C. Tayler, S. Lee, F. Laliberte, S. Feldstein, W. Maslowski, G. Henderson, J. Stroeve, D. Coumou, D. Handorf, T. Semmler, T. Ballinger, M. Hell, M. Kretschmer, S. Vavrus, M. Wang, S. Wang, Y. Wu, T. Vihma, U. Bhatt, M. Ionita, H. Linderholm, I. Rigor, C. Routson, **D. Singh**, M. Wendisch, D. Smith, J. Screen, J. Yoon, Y. Peings, H. Chen, and R. Blackport, 2018: Arctic change and possible influence on mid-latitude climate and weather. *US CLIVAR Report*, 2018-1, 41pp

N. S. Diffenbaugh, **Singh, D.**, and Mankin, J.S., "Probability of unprecedented climate events: comparing historical changes with the UN aspirational targets and NDC commitments", *Science Advances*, 4, 2, 2018

Cook, B. I., Williams, A.P, Mankin, J.S., Seager, R., Smerdon, J. E. and **D. Singh**, "Revisiting the leading drivers of Pacific coastal drought variability in the Contiguous United States", *Journal of Climate*, 31, 25-43, *2018*

Raymond, C., **Singh, D.**, and Horton, R. M., "Spatiotemporal patterns and synoptics of extreme wet-bulb temperature in the contiguous United States", *Journal of Geophysical Research-Atmospheres*, 122, 13, 108-13, 24, *2017*

D.L. Swain, **Singh, D.**, Horton, D., Mankin, J. S., Ballard, T., and N. S. Diffenbaugh, "Remote Linkages to Anomalous Winter Atmospheric Ridging Over the Northeastern Pacific", *Journal of Geophysical Research-Atmospheres*, 122, 12, *2017*, 194-12, 209, *2017*

Hydro2k Consortium PAGES2K-PMIP3, "Comparing data and model estimates of hydroclimate variability and change over the Common Era", *Climate of the Past*, 13, 1851-1900, *2017*

N.S. Diffenbaugh, **D. Singh**, J. S. Mankin, Horton, D., Swain, D., Touma, D., Charland, A., Liu, Y., Haugen, M., Tsiang, M., and B. Rajaratnam, "Quantifying the influence of observed global warming on the probability of historically unprecedented extreme climate events", *Proceedings of the National Academy of Sciences*, 114, 19, *2017*

D. Singh, Swain, D.L., Mankin, J.S., Horton, D.E., Thomas, L., Rajaratnam, B. and N.S. Diffenbaugh, "Recent amplification of the North American winter temperature dipole", *JGR-Atmospheres*, 121, *2016*

R. DeFries, Mondal, P., **Singh, D.**, Agrawal, I., Fanzo, J., Remans, R., and Wood, S. ,"Synergies and Trade-offs for Sustainable Agriculture: Nutritional Yields and Climate-Resilience for Cereal Crops in Central India, *Global Food Security*, *2016*

D.L. Swain, Horton, D.E., **Singh, D.**, and N.S. Diffenbaugh, "Trends in atmospheric patterns conducive to seasonal precipitation and temperature extremes in California", *Science Advances*, 2, 4, *2016*

D. Singh, "South Asian Monsoon: Tug of war on rainfall changes", *Nature Climate Change*, 6, *2016*

J.S. Mankin, Viviroli, D., **Singh, D.**, Hoekstra, A., and N.S. Diffenbaugh, "The potential for snow to supply human water demand in the present and future", *Environmental Research Letters*, 10, 114016, *2015*

(2015 Highlights, Mankin et al., *Environmental Research Letters*, 2015)

D.E. Horton, Johnson, N.C., **Singh, D.**, Swain, D.L., Rajaratnam, B., and N.S. Diffenbaugh, "Contribution of changes in atmospheric circulation patterns to extreme temperature trends", *Nature*, 522, 465-469, *2015*

D. Singh, Horton, D.E., Tsiang, M., Haugen, M., Ashfaq, M., Mei, R., Rastogi, D., Johnson,N., Charland, C., Rajaratnam, B., and N.S. Diffenbaugh, "Severe Precipitation in Northern India in June 2013: Causes, Historical Context, and Changes in Probability", [in Explaining Extreme Events of 2013 from a Climate Perspective] *Bulletin of the American Meteorological Society*, 95(9), *2014*

D.L. Swain, Tsiang, M.,Haugen, M., **Singh, D.**, Charland, A., Rajaratnam, B., and N.S. Diffenbaugh, "The Extraordinary California drought of 2013-2014: Character, Context and Role of Climate Change", in [Explaining Extreme Events of 2013 from a Climate Perspective] *Bulletin of the American Meteorological Society*, 95(9), *2014*

D.E. Horton, Skinner, C.B., **Singh, D.**, and N.S. Diffenbaugh, "Occurrence and persistence of future atmospheric stagnation events", *Nature Climate Change*, 4: 698-703, *2014*

(ISI "Highly Cited Paper", Horton et al. *Nature Climate Change*, 2014)

D. Singh, Tsiang, M., Rajaratnam, B., and N.S. Diffenbaugh, "Observed Changes in Extreme Wet and Dry Spells in the South Asian Summer Monsoon Season", *Nature Climate Change*, 4(6): 456-461, *2014*

(ISI "Highly Cited Paper", Singh et al. *Nature Climate Change*, 2014)

D. Singh, Tsiang, M., Rajaratnam, B. and N.S. Diffenbaugh, "Precipitation extremes over the continental United States in a transient, high-resolution, ensemble climate model experiment", *Journal of Geophysical Research Atmospheres*, 118 (13), 7063-7086, *2013*

D. Singh, Nishiie, T., Tanvir, S., and L. Qiao, "Flame Speed and Kinetics Analysis of Syngas Flames at Elevated Temperatures and with Water Addition", *Fuel*, 94, 448-456, *2012*

D. Singh, Nishiie, T., and L. Qiao, "Experimental and Kinetic Modeling Study of the Combustion of n-Decane, Jet-A, and S-8 in Laminar Premixed Flames", *Combustion Science and Technology*, 183, 1002-1026, *2011*

Published Conference Proceedings

D. Singh, Nishiie, T., and Qiao, L., "Laminar Burning Velocity of Syngas Flames at Elevated Temperatures", *Spring Technical Meeting of the Central States Section of the Combustion Institute, Champaign, Illinois, USA*, *March 21-23, 2010*

D. Singh, Nishiie, T., and Qiao, L., "Laminar Flame Speeds and Markstein Lengths of n-Decane/Air, n-Decane/O2/He and MCH/Air flames", *Spring Technical Meeting of the Central States Section of the Combustion Institute, Champaign, Illinois, USA*, *March 21-23, 2010*

D. Singh, Nishiie, T., and Qiao, L., "Laminar Burning Speeds and Markstein Lengths of n-Decane/air, n-Decane/O2/He, Jet-A/air and S-8/air flames", AIAA-2010-951, *48th AIAA Aerospace Sciences Meeting Including the New Horizons Forum and Aerospace Exposition, Orlando, Florida, USA*, *Jan 4-7, 2010*

T. Nishiie, **Singh, D.**, and Qiao, L., "Laminar Burning Velocity and Markstein Length of Decane/Air, Jet-A/Air and S-8/Air flames", *Sixth U.S. National Combustion Meeting, Ann Arbor, MI*, *May 17-20, 2010*

D. Singh, Nishiie, T., and Qiao, L., "Laminar Burning Velocity of Syngas/Air Flames with Water Vapor and Ammonia at Elevated Temperatures", *Sixth U.S. National Combustion Meeting, Ann Arbor, MI*, *May 17-20, 2010*

Academic Service

Peer Reviewer for:*Nature*, *Nature Climate Change*, *Nature Geoscience*, *Nature Scientific Reports*, *Geophysical Research Letters*, *Water Resources Research*, *Climate Dynamics*, *International Journal of Climatology*, *Journal of Climate*, *Journal of Geophysical Research-Atmospheres*, *Journal of Atmospheric Sciences*, *Journal of the American Water Resources Association*, *Journal of Environment and Agriculture Science*, *Water*, *Quaternary International*, *Bulletin of the American Meteorological Society*, and *Meteorology and Atmospheric Physics*

Proposal Reviewer, *National Science Foundation*

Weekly Science Seminar Organizer, *WSU Vancouver*, *2019- 2020*

Undergraduate Travel Grant Committee, *WSU Vancouver*, *2019- 2020*

Committee Member, *WSU SOE Communications Committee*, *2018- Present*

Programming Committee, PAGES2K PMIP3 Workshop, *Lamont-Doherty Earth Observatory, 2016*

Session Chair, Monsoon Dynamics in Past, Present, and Future Climates, *AGU Fall Meeting 2019*

Session Chair, Ambient Air Pollution, Climate Change, and Societal Impacts in South Asia, *AGU Fall Meeting 2018*

Session Chair, Identifying links between the large-scale atmospheric circulation and climate extremes, *AGU Fall Meeting 2016*

Session Co-convener, Detecting and attributing climate change: trends, extreme events, and impacts, *EGU General Assembly 2016*

Session Chair, Identifying links between the large-scale atmospheric circulation and climate extremes, *AGU Fall Meeting 2015*

Mentor for undergraduate student researcher, Program for Mentoring Undergraduates in Interdisciplinary Research, Woods Institute for the Environment, *Stanford University, 2012*

Founder for Women in Earth Sciences, *Stanford University, 2011-2015*

EESS Representative, Graduate Student Advisory Committee, School of Earth Sciences, *Stanford University, 2011-2012*

Mentor for summer undergraduate research, Summer Undergraduate Research Fellowships Program, College of Engineering, *Purdue University, 2010*

co-Founder for Women in Aeronautics and Astronautics Engineering, *Purdue University, 2009-2010*

Aeronautics and Astronautics Department Ambassador, Women in Engineering Graduate Mentoring Program, *Purdue University, 2009-2010*

Committee Member, Graduate Student Advisory Committee (AeroAssist), Aeronautics and Astronautics, *Purdue Univerisity, 2009-2010*

Programming Committee, Purdue Energy Club, *Purdue University, 2009-2010*

Executive Council Member, Purdue Pugwash, *Purdue University, 2008-2009*

Leader of Quality Circle Activities at Vishwakarma Institute of Technology, *Pune University, 2003-2006*

Public Outreach Activities and Talks

Guest, Important Not Important Podcast, *June 2019*

Guest, Collapse Chronicles Podcast, *April 2019*

"Global Warming: What it means, how it affects you, and what we can do about it", MESA SW Washington, Washington State University - Vancouver, January *2019*

Speaker, Skype-A-Scientist, Aldo Leopold Charter School, New Mexico, November, *2018*

"Climate Change, Extreme Weather, and Climate Impacts", Warm Springs Elementary School, CA, February *2018*

"Climate Change, Extreme Weather, and Climate Impacts", McMath Middle School and Renner Middle School, Texas, January *2018*

"Climate and Weather Extremes", Guest Lecture in NYU Environmental Sciences Climate Change Class, April *2017*

"Climate Change and Extreme Weather", Warm Springs Elementary School, CA, February *2017*

Organized and led a workshop for teachers on "Online Tools and Hands-on Activities for Climate Change Education", *(Invited)* 7th Annual William Patternson University's Educational Technology Conference, Nov *2016*

Mentor for High School Interns at Lamont-Doherty Earth Observatory, July-August *2016*

Panelist for Early Career Research Panel for High School and Undergraduate Visitors, Lamont-Doherty Earth Observatory, July *2016*

Panelist for Early Career Research Panel for Columbia University's Environmental Science and Policy Graduate Students, Lamont-Doherty Earth Observatory, July *2016*

Volunteer at Sun and Earth Day, American Museum of Natural History, NY, March *2016*

"Effect of Global Warming on Extreme Weather Events", Warm Springs Elementary School, CA, February*2016*

College Bound Program Volunteer, Boys and Girls Club of the Peninsula, Menlo Park, *2010-2015*

Workshop Organizer for Girls Day, Boys and Girls Club of the Peninsula, CA, April *2015*

Panelist on "Earth Matters: A Matter of Degrees", *(Invited)*, Continuing Studies Program and School of Earth, Energy and Environmental Sciences, Stanford University, February *2015*

Volunteer with Stanford School of Earth Sciences, *Bay Area Science Festival Discovery Day*, San Francisco, CA, November *2014*

"Observing and Modeling Climate", *Eclipse Nightlife*, California Academy of Sciences, San Francisco, CA, October *2014*

"Indian Summer Monsoon and its changing characteristics", *(Invited)*, Science Circle for High School students, *Stanford Univeristy Pre-collegiate Studies Program*, Stanford University, CA, May *2014*

"Generation Anthropocene: the age of human-induced changes in the Earth System", *(Invited)*, Science Circle for High School students, *Stanford Univeristy Pre-collegiate Studies Program*, Stanford University, CA, April *2014*

"Weather going wild: Will global warming lead to more extremes?", *(Invited)*, *Connecting the Dots*, Stanford Univeristy, CA, April *2014*

"Climate Change: Why its happening and how do we stop it", *Stanford Splash*, Stanford University, CA, April *2014*

Mentor for Stanford Medical Youth Science program, Stanford University, *2011*

Workshop Organizer for educating middle and high-school students about wind energy, Purdue University, *2008-2010*

Select Talks and Conference Presentations

D. Singh, "Climate, Wildfires, and Air Quality in the Pacific Northwest", *Northwest Climate Conference*, Seattle, October 8-10, *2019*

D. Singh, "Interactions between Climate Variability and Agricultural Activities in South Asia", *(Invited) UW Program on Climate Change Summer School*, Seattle, September 11-13, *2019*

D. Singh, "Historical trends in concurrent regional and global temperature extremes", *CLIVAR Large Ensembles Workshop*, NCAR Boulder, July 23-26

D. Singh, "Concurrent regional and global temperature extremes", *(Invited) Workshop on Risk Analysis for Extremes in the Earth System*, Berkeley, July 21-23, *2019*

D. Singh, "Concurrent regional and global temperature extremes", *Workshop on Correlated Extremes*, New York, May 29-31, *2019*

D. Singh, "Distinct influences of land-cover and land-management on seasonal climate", *AGU Fall Meeting*, Washington D.C., December 10-14, *2018*

D. Singh, "South Asian Monsoon: historical changes and the role of complex anthropogenic forcings", *(Invited)*, *Department of Civil and Environmental Engineering*, Washington State University - Pullman, Nov 26, *2018*

D. Singh, "South Asian Monsoon: historical changes and the role of complex anthropogenic forcings", *(Invited)*, *Oregon Climate Change Research Institute*, Oregon State University, Nov 9, *2018*

D. Singh, "South Asian Monsoon Extremes: historical changes, anthropogenic causes, and impacts on agricultural livelihoods", *(Invited)*, *School of International and Public Affairs and Earth Institute*, Columbia University, Feb 26, *2018*

D. Singh,"Climate and the Global Famine of 1876-78", *(Invited)*, *AGU Fall Meeting*, New Orleans, December 11-15, *2017*

D. Singh,"Climate Extremes: Trends, Physical Causes, and Societal Impacts", *(Invited)*, *Bren School for Environmental Science and Management*, University of California Santa Barbara, Mar 13, *2017*

D. Singh,"Climate Extremes: Trends, Physical Causes, and Societal Impacts", *(Invited)*, *School of the Environment*, Washington State University, Feb 23, *2017*

D. Singh,"Climate Extremes: Trends, Physical Causes, and Societal Impacts", *(Invited)*, *Department of Earth and Environmental Sciences*, Columbia University, Feb 15, *2017*

D. Singh,"Climate Extremes: Trends, Physical Causes, and Societal Impacts", *(Invited)*, *Meteorology and Atmospheric Sciences*, Penn State University, Feb 6, *2017*

D. Singh,"Changing Climate Extremes: Physical Causes and Societal Impacts", *(Invited)*, *Geography Department*, Dartmouth College, Jan 23, *2017*

D. Singh, M. Bollasina, M. Ting, and N.S. Diffenbaugh,"Detecting the influence of anthropogenic forcings on changes in the South Asian Monsoon subseasonal rainfall characteristics", *(Invited)*, *AGU Fall Meeting*, San Francisco, December 12-16, *2016*

D. Singh, D.L. Swain, J.S. Mankin, D.E. Horton, L. Thomas, B. Rajaratnam, and N.S. Diffenbaugh,"Recent amplification of the North American Winter Temperature Dipole", *AGU Fall Meeting*, San Francisco, December 12-16 *2016*

D. Singh, M. Bollasina, and N.S. Diffenbaugh, "Imprint of Historical Anthropogenic Emissions on the Subseasonal Variability of the Indian Summer Monsoon", *AGU Fall Meeting*, San Francisco, December 14-18 *2015*

D.E. Horton, J.S., Mankin, **D. Singh** , D.L. Swain, N. Johnson, and N.S. Diffenbaugh, "Probability of Atmospheric Circulation Pattern Occurrence in Pre-Industrial, Historical, and Future Climates", *AGU Fall Meeting*, San Francisco, December 14-18 *2015*

D.L. Swain, D.E. Horton,**D. Singh** and N.S. Diffenbaugh, "Trends in persistent seasonal-scale atmospheric circulation patterns responsible for precipitation and temperature extremes in California", *(Invited)*, *AGU Fall Meeting*, San Francisco, December 14-18 *2015*

N.S. Diffenbaugh, **D. Singh**, J. S. Mankin, D. E. Horton, D. L. Swain, and D. E. Touma, "Using Atmospheric Circulation Patterns to Detect and Attribute Changes in the Risk of Extreme Climate Events ", *(Invited)*, *AGU Fall Meeting*, San Francisco, December 14-18 *2015*

D. Singh, "Historical Trends in the Characteristics of the Indian Summer Monsoon", *(Invited)*, Sixth Indo-American Frontiers of Science Symposium, Irvine, California, August 12th *2015*

D. Singh, "Climate Extremes in a Warming World: Historical Trends, Physical Causes, and Response to Increasing Anthropogenic Emissions", Stanford University, Stanford, California, August 7th *2015*

D. Singh, "Changing Characteristics of Extreme Events in a Warming World", *(Invited)*, Department of Geology and Geophysics Seminar, Yale University, New Haven, February 5th *2015*

D. Singh, "Changing Characteristics of Extreme Events in a Warming World", *(Invited)*, Lamont Doherty Earth Observatory, New York, February 4th *2015*

D. Singh, D.E. Horton, and N.S. Diffenbaugh, "Influence of Anthropogenic Warming on extremes in the Indian Summer Monsoon using cluster Analysis", *95th AMS Annual Meeting*, Phoenix, January 4-8 *2015*

D. Singh, D.E. Horton, and N.S. Diffenbaugh, "Understanding the Dynamic and Thermodynamic Causes of Historical Trends in the Intraseasonal Variability of the South Asian Summer Monsoon", *AGU Fall Meeting*, San Francisco, December 15-19 *2014*

D.E. Horton, **D. Singh**, D.L. Swain, and N.S. Diffenbaugh, "Surface Temperature Extremes and Detectable Trends in Northern Hemisphere Mid-Tropospheric Planetary Wave Pattern Occurrence and Persistence", *AGU Fall Meeting*, San Francisco, December 15-19 *2014*

N.S. Diffenbaugh, B. Rajaratnam, A. Charland, M. Haugen, D.E. Horton, **D. Singh**, D.L. Swain, and M. Tsiang, "Quantifying the influence of observed global warming on the probability of unprecedented extreme climate events", *AGU Fall Meeting*, San Francisco, December 15-19 *2014 (Invited)*

D.L. Swain, 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", *AGU Fall Meeting*, San Francisco, December 15-19 *2014*

D. Singh, M. Tsiang, B. Rajaratnam, and N.S. Diffenbaugh,"Towards an Understanding of the Dynamics of Changing Rainfall Extremes in the Indian Summer Monsoon", *Fourth workshop on Understanding Climate Change from Data*, National Center for Atmospheric Research (NCAR), Boulder, June 30-July2 *2014*

D. Singh, M. Tsiang, B. Rajaratnam, and N.S. Diffenbaugh, "Observed Changes in the Characteristics of Active and Break Spells in the South Asian Summer Monsoon", *AGU Fall Meeting*, San Francisco, September 9-13 *2013*

D. Singh, M. Tsiang, B. Rajaratnam, and N.S. Diffenbaugh, "Impact of increased radiative forcing on the Intraseasonal Variability of the South Asian Summer Monsoon", *NCCR Climate Summer School*, Grindelwald, Switzerland, September 1-6 *2013*

D. Singh, M. Tsiang, B. Rajaratnam, and N.S. Diffenbaugh, "Increase in Extreme Precipitation over the Continental U.S. in the 21st century using High-resolution Climate Model Simulations", *U.S. CLIVAR Workshop on Analysis, Dynamics and Modeling Large-Scale Meteorological Patterns Associated with Extreme Temperature and Precipitation*, Berkeley, CA, August 20-22 *2013*

D. Singh, M. Tsiang, B. Rajaratnam, and N.S. Diffenbaugh, "Observed Changes in the Intraseasonal Variability of the South Asian Summer Monsoon", *Next Generation Climate Data Products Workshop*, NCAR Institute for Mathematics Applied to Geosciences, Boulder, CO July 15-19 *2013*

D. Singh, and N.S. Diffenbaugh, "Observed Intraseasonal Variability of the South Asian Monsoon and Evaluation of CMIP5", *Berkeley Atmospheric Sciences Symposium*, Berkeley, February 8 *2013*

D. Singh, M. Tsiang, B. Rajaratnam, and N.S. Diffenbaugh, "Intraseasonal Variability of the South Asian Monsoon and Evaluation of the CMIP5 models", *AGU Fall Meeting*, San Francisco, December 3-7 *2012*

Jordan Pratt, **D. Singh**, and N.S. Diffenbaugh,"Effects of Large-Scale Solar Installations on Dust Mobilization and Air Quality", *AGU Fall Meeting*, San Francisco, December 3-7 *2012*

D. Singh, and N.S. Diffenbaugh, "Dynamics of Changing Precipitation Extremes over the Continental United States in a Transient, High-Resolution Ensemble Experiment of 21st Century Climate", *Berkeley Atmospheric Sciences Symposium*, Berkeley, February 10 *2012*

D. Singh and N.S. Diffenbaugh, "Precipitation Extremes over the Continental United States in a Transient, High-Resolution Ensemble Experiment of 21st Century Climate", *AGU Fall Meeting*, San Francisco, December 5-9 *2011*

D. Singh and N.S. Diffenbaugh, "High-resolution Modeling of Extreme Precipitation in the United States", *Climate and Earth System Modeling PI Meeting*, Washington, DC, September 19-22 *2011*