

## Moetasim Ashfaq

Scientist

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## Education and Training

- 2009                   Purdue University, Atmospheric Sciences, PhD  
2003                   Quaid-i-Azam University, Computational Physics, MPhil  
2000                   Quaid-i-Azam University, Physics, MSc.

## Research and Professional Experience

- 2011-Present       R&D Staff/Climate Computational Scientist. Oak Ridge National Laboratory, Oak Ridge, TN.  
2009-2010         Postdoctoral Research Associate, Stanford University, Stanford, CA  
2003-2008         Graduate Research Assistant. Department of Earth and Atmospheric Sciences, Purdue University, West Lafayette, IN  
2004-2007         Visiting Scientist, Abdus Salam International Centre for Theoretical Physics, Trieste, Italy  
2002-2005         Research Fellow, Global Change Impact Studies Centre, Islamabad, Pakistan

## Publications

1. Diffenbaugh N.S., M. Ashfaq, Martin Scherer, Transient regional climate change: a high-resolution, century-scale, ensemble simulation of climate in the continental United States (2011), *J. Geophys. Res.*, in review
2. Diffenbaugh N. S., M. A. White, G. V. Jones and M. Ashfaq (2011), Climate adaptation wedges: a case study of premium wine in the western United States, *Environ. Res. Lett.*, in press.
3. Skinner C.B., M. Ashfaq, N.S. Diffenbaugh, A Quantification of GHG and SST Forcing in African Climate Change (2011), *J. of Climate*, accepted.
4. Ashfaq, M., L. C. Bowling, K. Cherkauer, J. S. Pal, and N. S. Diffenbaugh (2010), Influence of climate model biases and daily-scale temperature and precipitation events on hydrological impacts assessment: A case study of the United States, *J. Geophys. Res.*, 115, D14116, doi:10.1029/2009JD012965.
5. Diffenbaugh, N. S., and M. Ashfaq (2010), Intensification of hot extremes in the United States, *Geophys. Res. Lett.*, 37, L15701, doi:10.1029/2010GL043888.
6. Ashfaq, M., C.B. Skinner, N.S. Diffenbaugh (2010), Influence of SST biases in future climate projections, *Climate Dynamics*, doi: 10.1007/s00382-010-0875-2.
7. Ashfaq, M., Y. Shi, W. Tung, R. J. Trapp, X. Gao, J. S. Pal, and N. S. Diffenbaugh (2009), Suppression of south Asian summer monsoon precipitation in the 21st century, *Geophys. Res. Lett.*, 36, L01704, doi:10.1029/2008GL036500.
8. Pal, J.S., F. Giorgi, X. Bi, N. Elguindi, F. Solmon, X. Gao, S.A. Rauscher, R. Francisco, A. Zakey, J. Winter, M. Ashfaq, F.S. Syed, J.L. Bell, N.S. Diffenbaugh, J. Karmacharya, A. Konare, D. Martinez, R.P. da Rocha, L.C. Sloan and A. Steiner (2007), Regional climate modeling for the developing world: The ICTP RegCM3 and RegCNET, *Bulletin of the American Meteorological Society*, 88(9), 1395-1409.
9. Diffenbaugh, N.S., and M. Ashfaq (2007), Response of California Current forcing to mid-Holocene changes in insolation and sea surface temperature, *Paleoceanography*, 22, PA3101, doi:10.1029/2006PA001382.
10. Diffenbaugh, N.S., M. Ashfaq (2006), B. Shuman, J.W. Williams and P.J. Bartlein, Summer precipitation in United States: Response to mid-Holocene changes in insolation, ocean mean-state, and ocean

variability, *Geophysical Research Letters*, 33, L22712, doi: 10.1029/2006GL028012, 2006.

### **Synergistic Activities**

1. Reviewer: Water Resources Research, Geophysical Research Letters, Meteorology and Atmospheric Physics, Journal of Climate, Climate Dynamics, Climate Research, Atmospheric Science Letters, International Journal of Climatology, Journal of Hydrometeorology
2. Member: American Meteorological Society, American Geophysical Union

### **Awards and Honors**

1. Henry Silver Graduate Research Excellence Scholarship, EAS, Purdue University, West Lafayette, IN. (2009)
2. College of Science International Travel Award, Purdue University, West Lafayette, IN. (2008, 2009)
3. P. F. Low Award for AGU, EAS, Purdue University, West Lafayette, IN. (2007, 2008)
4. Runner-up Award 1st HP-Community poster session, Purdue University, West Lafayette, IN, USA.(2007)
5. Best Performance Award, Global Change Impact Studies Centre, Islamabad, Pakistan. (2004)

### **Graduate and Postdoctoral Advisors**

*Graduate Advisor:* Noah S. Diffenbaugh