

## **BRUCE T. ANDERSON**

**Associate Professor**, Department of Geography and Environment  
Boston University  
675 Commonwealth Avenue  
Boston, MA 02215

### **RESEARCH INTERESTS:**

Regional impacts of climate variability; Large-scale and regional atmospheric dynamics and hydrology; Historical and future climate trends; Climate/land-surface/vegetation interactions and monitoring

### **DEGREES:**

Ph.D. 1998 Scripps Institution of Oceanography, La Jolla, CA  
Major Field: Ocean Sciences

B.S. 1994 University of California, Santa Barbara, CA  
Major Field: Physics (with Highest Honors)

### **EMPLOYMENT:**

2006-Present Associate Professor, Dep't. of Geography and Environment, Boston University  
2008, 2009 Visiting Fellow, Grantham Institute of Climate Change, Imperial College London  
2007 Royal Society Visiting Scientist, Space and Atmospheric Physics Group, Dep't. of Physics, Imperial College London  
2001-2006 Assistant Professor, Dep't. of Geography and Environment, Boston University  
1998-2000 NOAA Postdoctoral Fellow in Global and Climate Change  
1994-1998 Graduate Student, Scripps Institution of Oceanography, UC, San Diego  
1993-1994 Research Assistant, Physics Dep't., University of California, Santa Barbara  
1993 Research Assistant, Chemistry Dep't., Harvard University, Cambridge, MA.  
1991-1992 Research Assistant, Geography Dep't., University of California, Santa Barbara

### **RESEARCH**

**Publications:** (§ - *advisee*)

#### 2011:

- (1) **Anderson, B.T.**, J.R. Knight, M.A. Ringer, C. Deser, A.S. Phillips, J.-H. Yoon, and A. Cherchi, 2011: Climate forcings and climate sensitivities diagnosed from atmospheric global circulation models, *Clim. Dyn.*, DOI: 10.1007/s00382-010-0798-y.
- (2) **Anderson, B.T.** 2011: Intensification of seasonal extremes given a 2°C global warming target, *Climatic Change*. (accepted).
- (3) **Anderson, B.T.**, J.R. Knight, M.A. Ringer, J.-H. Yoon, and A. Cherchi, 2011: Testing for the possible influence of unknown climate forcings upon global temperature increases from 1950-2000, *J.Climate* (in review).
- (4) **Anderson, B.T.** 2011: Near-term increase in frequency of seasonal temperature extremes prior to the 2 °C global warming target, *Climatic Change Letters*. (in review).
- (5) Furtado, J.C., E. Di Lorenzo, **B.T. Anderson**, and N. Schneider, 2011: Low-frequency variability of the North Pacific Oscillation, *Clim. Dyn.*, (in review)

#### 2010:

- (6) **Anderson, B.T.**, J. Wang<sup>§</sup>, G. Salvucci, S.Gopal, and S. Islam, 2010: Observed trends in summertime monsoon precipitation over the southwestern United States, *J. Climate* **23**, 1937-1944.
- (7) **Anderson, B.T.**, Hayhoe, K., and X.-Z. Liang, 2010: Anthropogenic-induced changes in 21st Century summertime hydroclimatology of the Northeastern U.S., *Climatic Change*. **99**, 403-423
- (8) Zhang, P. <sup>§</sup>, **B.T. Anderson**, and R. B. Myneni, 2010: Application of a satellite-based climate-variability impact index for crop yield forecasting in drought-stricken regions, *African J. of Plant Sci.* **4**, 82-94.
- (9) Samanta, A. <sup>§</sup>, **B.T. Anderson**, R. Nemani, and R. Myneni, 2010: Physical climate response to a reduction of anthropogenic climate forcing, *Earth Interactions*, **14**, 1-11. doi: 10.1175/2010EI325.1

- (10) Di Lorenzo, E., K.M. Cobb, J.C. Furtado, N. Schneider, **B.T. Anderson**, A. Bracco, M.A. Alexander, and D. Vimont 2010: Central Pacific El Niño and decadal climate change in the North Pacific, *Nature – Geophys.*, **3**, 762

2009:

- (11) **Anderson, B.T.**, C. Reifen<sup>§</sup> and R. Toumi, 2009: Consistency in global climate change model predictions of regional precipitation trends, *Earth Interactions*. **13**, DOI: 10.1175/2009EI273.1
- (12) **Anderson, B.T.**, C. Reifen<sup>§</sup> and R. Toumi, 2009: Identification of non-linear behavior in transient climate change projections of soil moisture over the United States, *Earth Interactions*. **13**, DOI: 10.1175/2008EI269.1.
- (13) **Anderson, B.T.** and Wang, J.<sup>§</sup>, S. Gopal, and G. Salvucci 2009: Influence of daily rainfall characteristics upon regional summertime precipitation over the southwestern U.S. *J. Hydrometeor.*, **10**, 1218-1230.
- (14) **Anderson, B.T.**, A. Ruane, M. Kanamitsu, and J.O. Roads, 2009: Estimating the influence of evaporation and moisture-flux convergence upon seasonal precipitation rates. Part II: An analysis for North America based upon the NCEP–DOE Reanalysis II Model, *J. Hydrometeor.*, **10**, 893-911.
- (15) Caballero, R. and **B.T. Anderson**, 2009: Impact of midlatitude stationary waves on regional Hadley cells and ENSO, *Geophys. Res. Lett.*, **36**, DOI: 10.1029/2009GL039668

2008:

- (16) **Anderson, B.T.**, G. Salvucci, A. Ruane, M. Kanamitsu, and J.O. Roads, 2008: A new metric for estimating the influence of evaporation upon seasonal precipitation rates, *J. Hydrometeor.* **9**, 576-588
- (17) Hayhoe, K., C.P. Wake, **B.T. Anderson**, et al.. 2008. Regional climate change projections for the Northeast U.S., *Mitigation and Adaptation Strategies for Global Change*, **13**, 425-436

2007:

- (18) **Anderson, B.T.**, 2007: Intra-seasonal atmospheric variability in the extra-tropics and its relation to the onset of tropical Pacific sea-surface temperature anomalies, *J. Climate*, **20**, 1593-1599
- (19) **Anderson, B.T.**, 2007: On the joint role of subtropical atmospheric variability and equatorial subsurface heat content anomalies in initiating the onset of ENSO events, *J. Climate*, **20**, 926-936
- (20) Wang, W.<sup>§</sup>, **B.T. Anderson**, D. Entekhabi, D. Huang, R. K. Kaufmann, C. Potter, and R. B. Myneni, 2007: Intraseasonal Interactions between Temperature and Vegetation over the Boreal Forests. *Earth Interactions*, **11**, Art. No. 18
- (21) Wang, J.<sup>§</sup>, **B.T. Anderson**, and G. Salvucci, 2007: Stochastic modeling of daily summertime rainfall over the southwestern U.S. Part II: Intraseasonal variability, *J. Hydrometeor.* **8**, 938-951.
- (22) Hayhoe, K., C. Wake, **B.T. Anderson** et al., 2007: Past and future changes in climate and hydrological indicators in the U.S. Northeast, *Clim. Dyn.* DOI 10.1007/s00382-006-0187-8
- (23) Sciré Scappuzzo, F. <sup>§</sup>, **B.T. Anderson**, B. Buerki, and H.-G. Kahle, 2007: Non-hydrostatic GPS Data Corrections for Mount Jungfrau (CH) Using Theoretical and Numerical Modeling Data and Meteorological Observations, Proceedings of the 63st annual meeting of the Institute of Navigation, Cambridge, MA, April 23-25, 2007

2006:

- (24) **Anderson, B.T.** and E. Maloney, 2006: Interannual Tropical Pacific Sea-Surface Temperatures and Preceding Sub-Tropical North Pacific Sea Level Pressure Anomalies in the NCAR CCSM2.0, *J. Climate*, **19**, 998-1012.
- (25) **Anderson, B.T.**, H. Kanamaru, and J.O. Roads, 2006: Variations in the summertime atmospheric hydrologic cycle associated with seasonal precipitation anomalies over the southwestern US, *J. Hydrometeor.* **7**, 788-807
- (26) Wang, W.<sup>§</sup>, **B.T. Anderson**, D. Entekhabi, D. Huang, R. K. Kaufmann, C. Potter, and R. B. Myneni, 2006: Feedbacks of Vegetation on Summertime Climate Variability over North American Grasslands: 1. Statistical Analysis. *Earth Interactions*, **10**, Art. No. 17
- (27) Wang, W.<sup>§</sup>, **B.T. Anderson**, N. Phillips, D. Entekhabi, R. K. Kaufmann, D. Huang, C. Potter, and R. B. Myneni, 2006: Feedbacks of Vegetation on Summertime Climate Variability over North American Grasslands: 2. A Coupled Stochastic Model. *Earth Interactions*, **10**, Art. No. 16
- (28) Zhang, P.<sup>§</sup>, **B.T. Anderson**, B. and R. B. Myneni, 2006: Monitoring 2005 corn-belt yields from space, *EOS.*, **87** (15), 150.
- (29) Wang, J.<sup>§</sup>, **B.T. Anderson**, and G. Salvucci, 2006: Stochastic modeling of daily summertime rainfall over the southwestern U.S. Part I: interannual variability, *J. Hydrometeor.* **7**, 739-754

- (30) Ozdogan, M.<sup>§</sup>, G. Salvucci, and **B.T. Anderson**, 2006: Examination of the Bouchet-Morton complementary relationship using a mesoscale climate model and observations under a progressive irrigation scenario, *J. Hydrometeor.*, **7**, 235-251.

2005:

- (31) **Anderson, B.T.** and H. Kanamaru, 2005: The diurnal cycle of the summertime atmospheric hydrologic cycle over the southwestern US, *J. Hydrometeor.*, **6**, 219-228.
- (32) Zhang, P.<sup>§</sup>, **B.T. Anderson**, B. Tan, D. Huang and R. B. Myneni, 2005: Potential monitoring of crop yield using a satellite-based climate variability impact index, *Agricultural and Forest Meteor.*, **131**, 344-358.
- (33) Lotsch, A.<sup>§</sup>, M.A. Friedl, **B.T. Anderson**, and C.J. Tucker, 2005: Response of Terrestrial Ecosystems to Recent Northern Hemispheric Drought, *Geophys. Res. Lett.* **32**, L06705, doi:10.1029/2004GL022043
- (34) D. Gochis, **B.T. Anderson**, et al., 2005: The Water Cycle Across Scales, *Bull. Amer. Meteor. Soc.*, **86**, 1743-1746.
- (35) Sciré Scappuzzo, F.<sup>§</sup>, **B.T. Anderson**, B. Buerki, and H.-G. Kahle, 2005: Analysis of the effect upon GPS measurements arising from deviations from hydrostatic equilibrium in areas affected by severe weather, Proceedings of the 61st annual meeting of the Institute of Navigation, Cambridge, MA, June 27-29, 2005

2004:

- (36) **Anderson, B.T.**, 2004: Investigation of a large-scale mode of ocean/atmosphere variability and its relation to tropical Pacific sea-surface temperature anomalies, *J. Climate*, **17**, 4089-4098
- (37) **Anderson, B.T.**, H. Kanamaru, and J.O. Roads, 2004: The summertime atmospheric hydrologic cycle over the southwestern US, *J. Hydrometeor.*, **5** (4): 679-692
- (38) Zhang, P.<sup>§</sup>, **B.T. Anderson**, M. Barlow, B. Tan, and R. B. Myneni, 2004: Climate related vegetation characteristics derived from MODIS LAI and NDVI, *J. Geophys. Res.*, **109**, D20105, doi:10.1029/2004JD004720
- (39) Wang, W.<sup>§</sup>, **B. T. Anderson**, R. K. Kaufmann, and R. B. Myneni, 2004: The relation between the North Atlantic Oscillation and SSTs in the North Atlantic basin. *J. Climate*, **17**, 4752-4759

2000-2003:

- (40) **Anderson, B.T.**, 2003: Tropical Pacific sea-surface temperatures and preceding sea-level pressure anomalies in the subtropical North Pacific, *J. Geophys. Res.* **108**, Art. No. 4732
- (41) Buermann, W.<sup>§</sup> and **Anderson, B.T.**, C.J. Tucker, R.E. Dickinson, W. Lucht, C.S. Potter, and R.B. Myneni, 2002: Interannual covariability in Northern Hemisphere air temperatures and greenness associated with El Nino-Southern Oscillation and the Arctic Oscillation, *J. Geophys. Res.* **108**, Art. No. 4396.
- (42) Lotsch, A.<sup>§</sup>, M.A. Friedl, **B.T. Anderson**, and C.J. Tucker, 2003: Coupled vegetation-precipitation variability observed from satellite and climate records. *Geophys. Res. Lett.*, **30**, 10.1029/2003GL017506
- (43) **Anderson, B.T.**, 2002: Regional simulation of intraseasonal variations in the summertime hydrologic cycle over the southwestern United States. *J. Climate*, **15**, 2282-2300.
- (44) **Anderson, B.T.** and J.O. Roads, 2002: Regional simulation of summertime precipitation over the southwestern United States, *J. Climate*, **15**, 3321-3342.
- (45) **Anderson, B.T.**, J.O. Roads, and S-C. Chen, 2001: Model dynamics of summertime low-level jets over northwestern Mexico, *J. Geophys. Res.*, **106**(D4), 3401-3413.
- (46) **Anderson, B.T.** and J.O. Roads, 2001: Summertime moisture divergence over the southwestern US and northwestern Mexico, *Geophys. Res. Lett.*, **28** (10): 1973-1976.
- (47) **Anderson, B.T.**, J.O. Roads, S.-C. Chen, and H.-M.H. Juang, 2000: Regional simulation of the low-level monsoon winds over the Gulf of California and southwestern United States, *J. Geophys. Res.*, **105**(D14), 17,955-17,969.
- (48) **Anderson, B.T.**, J.O. Roads, and S-C. Chen, 2000: Large-scale forcing of summertime monsoon surges over the Gulf of California and southwestern United States, *J. Geophys. Res.* **105**(D19), 24,455-24,467.

**Proposals:**

Anderson, B.T. (principal investigator): Detection of historical and future precipitation variations and extremes over the continental United States: NOAA/CPO, with G. Salvucci (co-investigator)	PENDING
Anderson, B.T. (principal investigator): Inherent predictability of observed seasonal mean precipitation variations over the continental United States: NSF/AGM, with G. Salvucci (co-investigator)	9/10-8/13
Anderson, B.T. (co-principal investigator): Pacific Decadal Variability and Central Pacific Warming El Niño in a Changing Climate: DOE, with E. Di Lorenzo (co-PI)	9/10-8/13
Anderson, B.T. (co-investigator): NSF GK-12 Graduate STEM Fellows in K-12 Education "Glacier- Global Change Initiative-Education & Research: NSF, with S. Gopal (principal investigator)	6/10-5/15
Anderson, B.T. (principal investigator): Anthropogenic and oceanic climate forcing in numerical models and observations: Royal Society Visiting Scientist Fellowship, with A. Czaja (co-investigator)	9/07-11/07
Anderson, B.T. (principal investigator): Tracing Causality and Feedback Relations between Land Surface Temperatures and Vegetation Activity: NASA/Earth System Science Fellowship, with W. Wang (graduate student)	4/03-8/07
Anderson, B.T. (principal investigator): Proposal to perform event-based studies of interannual variations in Summertime precipitation over the southwestern United States: NOAA OGP PACS Program, with G. Salvucci (co-investigator)	11/03-11/07
Anderson, B.T. (co-investigator): Retrieval of time-varying land cover and vegetation properties from MODIS in support of the NCEP-WRF land surface model: NOAA/NEDI with M. Friedl (principal investigator)	6/03-6/04
Anderson, B.T. (co-investigator): The effects of agricultural expansion on regional hydrology in southeastern Turkey, NASA Office of Earth Science, with G. Salvucci (principal investigator)	10/01-10/05
Anderson, B.T. (principal investigator): The Summertime Atmospheric Hydrologic Cycle over the Southwestern US and Northwestern Mexico, NOAA OGP PACS Program, with J. Roads (principal investigator)	7/01-7/04
Anderson, B.T. (principal investigator): Regional Modeling of the Hydrologic Cycle, NOAA OGP Global and Climate Change Visiting Scientist Program	11/98-11/00
Anderson, B.T. (co-investigator): Modeling the Gulf of California summertime hydrologic cycle, NOAA OGP PACS Program, with J. Roads (principal investigator)	7/98-7/01

## **ACADEMIC**

### **Courses (3 per year):**

- GE101 – The Atmosphere: An introduction to weather and climate. Topics include the controls of weather and climate, severe storms, climates of the world and climatic change (*lower-division undergraduate course*)
- WR/GE 150 – Extreme Weather and Climate. Topics include dynamics of extreme weather and climate events, impacts of such events both upon individuals and societies, and the description and investigation of these impacts within historical/research writing (*lower-division undergraduate writing course*)
- GE310 – Climate and the Environment. Topics include atmospheric and surface energy balances; atmospheric dynamics and the general circulation; local wind systems and air pollution; ocean dynamics; climate change (*upper-division undergraduate course*).
- GE504 – Physics of Climate. Topics include atmospheric composition and thermodynamics; radiative transfer; the global energy balance; land-surface energy balance; the global hydrologic cycle; atmospheric dynamics and the general circulation; ocean dynamics; climate feedbacks and forcings (*graduate course*).
- GE/ES 507 – Dynamical Oceanography. Topics include physical properties of seawater; major current systems and water masses; overview of essential ocean dynamics; simple waves; deepwater formation and the thermohaline circulation; and the coupled atmosphere-ocean system and its interaction with climate variability (*graduate course*).
- GE830 – Climate Seminar: Data resources for the climate sciences. Topics include data resource availability, utility of disparate data for climate change and environmental science research, presentation and scientific communication techniques (*graduate course*)

### **Ph.D Thesis Advisor:**

- Toby Fusco (2009-Present) – Ph.D. Boston University, Department of Geography and Environment
- Francesca Scire Scappuzzo (2004-2009) – Ph.D. ETH/Switzerland, Department of Civil, Environmental, and Geomatics Engineering
- Jingyun Wang (2003-2007) – Ph.D. Boston University, Department of Geography and Environment
- Ping Zhang (2002-2007) – Ph.D. Boston University, Department of Geography and Environment
- Weile Wang (2002-2006) – Ph.D. Boston University, Department of Geography and Environment

### **Thesis Committee:**

- Meghan Salmon (expected) – Ph.D. Boston University, Department of Geography and Environment
- Jian Sun (expected) – Ph.D. Boston University, Department of Geography and Environment
- Giacomo Masato (2010) – Ph.D. Reading University, Department of Meteorology
- Catherine Reifen (2010) – Ph.D. Imperial College London, Department of Physics
- Arindam Samanta (2010) – Ph.D. Boston University, Department of Geography and Environment
- Jason Furtado (2010) – Ph.D. Georgia Institute of Technology, School of Earth & Atmospheric Sciences
- Angela Martin (2005) – M.S. Boston University, Department of Geography
- Mutlu Ozdogan (2004) – Ph.D. Boston University, Department of Geography
- Joseph Santanello (2004) – Ph.D. Boston University, Department of Geography
- Jennifer Saleem (2004) – Ph.D. Boston University, Department of Geography
- Alex Lotsch (2003) – Ph.D. Boston University, Department of Geography
- Wolfgang Buermann (2002) – Ph.D. Boston University, Department of Geography
- Hideki Kanamaru (2002) – Ph.D. Boston University, Department of Geography
- Rongqian Yang (2002) – Ph.D. Boston University, Department of Geography

**Undergraduate Advisor:***B.A. Environmental Science, Boston University:*

Delatsiky, Michael  
Dolby, Andrew  
Doiron, Meghan  
Drell, Stephanie  
Estabrook, Samuel  
Hammer, Julia  
Hartz, Laura  
Holmberg, Anders  
Hughes, Ashley

Isom, Kellene  
Maxwell, Yael  
Pasquarella, Valerie  
Schaub, Jessica C.  
Sgrignuoli, Jessica  
Vanaria, Janie-Lynn  
Vincent, Derek  
Wheatley, Susan

*B.A. Physical Geography, Boston University:*

Angiolillo, Nick  
Fortin, Jeffrey  
Fajkowski, Anna  
Knutson, Ingrid

Read, Lauren  
Ryan, Megan  
Vincent, Derek  
Zaremba, Adam

*B.A. Other (Mathematics, Earth Sciences, International Relations, Biology, Psychology)*

Angiolillo, Nicholas  
Dolby, Greer  
Hayden, Benjamin

Molomut, Rachel  
Ponton, Amanda  
Resnick, Stephanie

**Independent Work with Distinction/Directed Study/BU Academy**

Jenny Ahlen (2002) – B.A.  
Katie Swanson (2003) – B.A.

Kellene Isom (2004) – B.A.  
Curt Gangles (2006) – B.U. Academy

## **SERVICE**

### **Professional Memberships**

American Geophysical Union: 1998-Present                      American Meteorological Society: 2005-Present

### **Professional Committees/Offices**

American Meteorological Society Membership Committee: 2005-2008

### **Visiting Scientist Fellowships:**

*Grantham Institute for Climate Change* Visiting Fellow

*Royal Society* Visiting Scientist

*National Research Council* Summer Faculty Fellowship

NOAA Visiting Scientist Fellowship, Postdoctoral Program in Climate and Global Change

### **Textbook Development:**

Anderson, B.T. and Strahler, A., 2008: *Visualizing Weather and Climate*, John Wiley & Sons, 500pp. – An investigation of climate and weather phenomenon for use in non-math based introductory courses

Anderson, B.T., 2009: *Climate and the Environment*, 195pp. - An advanced undergraduate/introductory graduate level text for use in Physical Climatology courses; presently in use in draft form

### **Review Committees**

Panel Review of Proposals for NSF/USDA/DOE for Earth System Model Program, \$25m in funding distributed, Washington, DC – 8/29/2010-9/1/2010

Panel Review of Proposals for DOE Regional and Global Climate Modeling Program, \$15m in funding distributed, Washington, DC – 5/26-27/2010

Panel Review of Proposals for NOAA Office of Global Programs/Warm Season Precipitation Program, \$4m in funding distributed, Washington, DC – 10/28-29/2003

### **Research Consulting:**

2005-Present *Union of Concerned Scientists*: Provide input regarding research design for regional integrated assessment of future global climate change impacts upon socio-economic sectors in the Northeast US; Analyze regional model predictions of Northeast US climate under differing global change scenarios (<http://www.climatechoices.org/ne/index.html>)

2006-Present *Experimental Center for Remote Observations of Production (ECROP)*: Website development and operation for near real-time dissemination of crop monitoring data taken from remote-sensing platforms (<http://ecrop.bu.edu>)

### **University Committee/Administrative:**

2009-Present Director of Undergraduate Studies, Dep't. of Geography and Environment, Boston University, Boston

2006-2009 Associate Chair, Dep't. of Geography and Environment, Boston University, Boston

2006-2007 Chair, Natural Sciences Curriculum Committee, Boston University, Boston

2004-2007 Natural Sciences Curriculum Committee, Boston University, Boston – Review, revise, and approve changes to courses, curriculum, and departments within the Natural Sciences of the College of Arts and Sciences

2003-2006 Academic Conduct Board Member, Boston University, Boston – Hear and decide upon cases of academic misconduct within the College of Arts and Sciences

### **Scientific Presentations:**

#### **2010:**

- (1) Utah State University (*Invited*), Logan UT – Human-induced changes in 21st Century regional climates: Is a 2°C global warming “safe”? October 2010
- (2) 16th Annual Community Climate Systems Model (CCSM) Workshop (*Invited*), Breckenridge, CO - On the radiative quasi-equilibrium between global temperatures and anthropogenic climate forcing, June 2010
- (3) Arizona State University (*Invited*), Phoenix, AZ – Intraseasonal to Decadal Scale Ocean-Atmosphere Coupling in the Extratropics and Tropics, March 2010
- (4) University College Dublin (*Invited*), Dublin Ireland – Intraseasonal to Decadal Scale Ocean-Atmosphere Coupling in the Extratropics and Tropics, March 2010

#### 2009:

- (5) Imperial College (*Invited*), London, UK – Wherefore El Niño: The impact of extra-tropical atmospheric circulations upon the tropical Pacific, August 2009
- (6) Reading University (*Invited*), Reading, UK – The North Pacific Oscillation and El Niño/Southern Oscillation: Coupling between the Extra-tropics and Tropics, November 2009
- (7) Georgia Institute of Technology (*Invited*), Atlanta, GA – The North Pacific Oscillation and its impact upon the tropical Pacific, December 2009
- (8) Boston University (*Invited*), Boston, MA – Potential Climate Change Impacts upon the Northeast, December 2009
- (9) AGU Fall Meeting, San Francisco, CA - The impact of midlatitude stationary waves on the Hadley cell and ENSO, December 2009

#### 2008:

- (10) Imperial College (*Invited*), London, UK – Non-linear changes in Regional climate responses to 21st century anthropogenic forcing, February, 2008
- (11) 1<sup>st</sup> Annual North American Regional Climate Change Assessment Program (NARCCAP) Users Workshop (*Invited*), Boulder, CO, February 2008
- (12) Hadley Centre (*Invited*), Exeter, UK – Climate Sensitivity and Ocean Heat Uptake of Anthropogenic Forcing: What can we learn from atmospheric general circulation models, March, 2008
- (13) School of Medicine, Imperial College (*Invited*), London, UK - Remote Sensing and the Monitoring and Mitigation of Disease and Human Health, June 2008
- (14) Boston University (*Invited*), Boston, MA – Identification of non-linear and linear regional climate responses to 21st century anthropogenic forcing, October 2008
- (15) Boston University (*Invited*), Boston, MA – Uncertainties in climate sensitivity and climate forcing: What can we learn from atmospheric general circulation models? October 2008
- (16) 4<sup>th</sup> ICTP Workshop on the Theory and Use of Regional Climate Models, Trieste, IT – Identification of non-linear regional climate responses to 21st century anthropogenic forcing, March 2008
- (17) 8<sup>th</sup> International Regional Spectral Model Workshop, Trieste, IT – Anthropogenic-induced changes in the 21st Century Spring/summer hydroclimatology of the Northeastern US, March 2008
- (18) AGU Fall Meeting, San Francisco, CA - Development and Analysis of Global, High-Resolution Diagnostic for Vegetation Monitoring, Yield Estimation and Famine Mitigation, December 2008
- (19) AGU Fall Meeting, San Francisco, CA - Consistency in Global Climate Change Model Forecasts of Regional Precipitation Trends, December 2008
- (20) AGU Fall Meeting, San Francisco, CA - Identification of Non-linear Behavior in Transient Climate Change Projections of Soil Moisture over the United States, December 2008

#### 2007:

- (21) Imperial College (*Invited*), London, UK – Influences of Anthropogenic and Oceanic Forcing on Top-of-atmosphere Radiative Fluxes and Tropospheric Temperatures, February 2007
- (22) Northeast Sustainable Energy Association BuildingEnergy07 (*Invited*), Boston, MA – Our Changing Northeast Climate, March 2007
- (23) The Environmental Protection Commissioner's Forum on Regional Greenhouse Gas Initiative (*Invited*), Augusta, ME, February 2007
- (24) AGU Fall Meeting, San Francisco, CA - Potential predictability of summertime rainfall extremes over the southwestern US, December 2007
- (25) AGU Fall Meeting, San Francisco, CA - Anthropogenic-induced changes in the 21st Century summertime hydroclimatology of the Northeastern US, December 2007

#### 2006:

- (26) The Massachusetts Dep't. of Environmental Protection Retreat (*Invited*), Wachusett, MA, - Climate Change in Northeast US, October 2006
- (27) 11th Annual Community Climate Systems Model Workshop (*Invited*), Breckenridge, CO - Use of CCSM3 and CAM3 Historical Runs: Estimation of Natural and Anthropogenic Climate Variability and Sensitivity, June 2006
- (28) NAME Workshop (*Invited*), Tucson, AZ - Identification of potentially-predictable summertime rainfall anomalies and their relation to climate variability, July 2006



#### 2006 Con't.:

- (29) AGU Spring Meeting, Baltimore, MD - Large-scale circulation variations and their role in altering the summertime atmospheric hydrologic cycle over the southwestern US – May 2006
- (30) AGU Spring Meeting, Baltimore, MD - Tropospheric temperature changes and their relation to increasing greenhouse gases and sea surface temperatures: Can we find a distinguishing “fingerprint” for either in the observational record – May 2006

#### 2005:

- (31) Regional Spectral Modeling Workshop, Lamont Doherty Earth Observatory, NY - The effects of irrigation on the regional hydro-climatology of southeastern Turkey, July 2005
- (32) 10th Annual Community Climate Systems Model Workshop (*Invited*), Breckenridge, CO - Ocean/atmosphere variability related to the development of tropical Pacific sea-surface temperature anomalies in the CCSM3.0, June 2005
- (33) AGU Spring Meeting (*Invited*), New Orleans, LA - Stochastic modeling of daily summertime rainfall over the southwestern US and its relation to the potential predictability of interannual variations, May 2005
- (34) National Center for Atmospheric Research (*Invited*), Boulder, CO - Ocean/atmosphere variability related to the development of tropical Pacific sea-surface temperature anomalies in the CCSM2.0, April 2005
- (35) AAG Spring Meeting, Denver, CO - Atmospheric Moisture Cycling Over the Southwestern United States, April 2005
- (36) Scripps Institution of Oceanography (*Invited*), San Diego, CA - Extra-tropical ocean/atmosphere variability related to the development of tropical Pacific sea-surface temperature anomalies, January 2005
- (38-40) AGU Fall Meeting, San Francisco, CA (3 papers) – December 2005
- (41-43) AMS Winter Meeting, San Diego, CA (3 papers) – January 2005

#### 1998-2004:

- (44) Massachusetts Institute of Technology (*Invited*), Cambridge, MA – Atmospheric moisture cycling over the southwestern United States, November 2004
- (45) Rutgers University (*Invited*), New Brunswick, NJ – Extra-tropical ocean/atmosphere variability related to the development of tropical Pacific sea-surface temperature anomalies, April 2004
- (46) AGU Fall Meeting, San Francisco, CA (1 paper) – December 2004
- (47) PACS PI Workshop, Boulder, CO – September 2003
- (48) UCAR/NCAR Junior Faculty Forum on Future Scientific Directions (*Invited*), Boulder, CO – June 2003
- (49) Potsdam Institute for Climate Impact Research – May 2003
- (50) AGU Fall Meeting, San Francisco, CA – December 2004
- (51) AGU Fall Meeting, San Francisco, CA – December 2002
- (52) NASA Ames Research Center, - December 2002
- (53) NOAA's Monsoon Applications and Human Dimensions Workshop and Initiative (*Invited*), Tucson, AZ – June 2001
- (54) Climate Diagnostics Workshop, Scripps Institution of Oceanography, La Jolla – October 2001
- (55) Regional Spectral Modeling Workshop, Maui, HI, - Synoptic Control of Fire Weather Danger for The Islands of Hawaii, August 2000
- (56) Regional Spectral Modeling Workshop, Maui, HI, Regional Simulation of Summertime Precipitation over the Southwestern US, August 2000
- (57) NOAA Visiting Scientist Workshop (*Invited*), Steamboat Springs, CO, - A Shift in Global Response to Tropical Sea-Surface Temperature Anomalies, May 2000
- (58) Climate Diagnostics Workshop, Lamont-Doherty Earth Observatory, NY - 11/00
- (59) PACS PI Workshop, Baltimore, MD, - Regional simulation of summertime precipitation over the southwestern United States, July 2000
- (60) Regional Spectral Modeling Workshop, Maui, HI, Continuous Regional Simulations of Summertime Precipitation over the Gulf of California and Southwestern, August 1999

## **Media and Public Presentations:**

### 2010:

Phillips Academy, Andover MA - "Informal Conversation about Climate Change", 10/30/2010  
NSF GLACIER Summer Workshop for K-12 Teachers, Boston MA – "Potential Climate Change Impacts upon the Northeast", 8/9/2010

### 2009:

Phillips Academy, Andover MA - "Putting a Face on Climate Change: An Assessment of Impacts upon the Northeast", 11/6/2009  
National Caucus of Environmental Legislators - "Potential Climate Change Impacts upon the Northeast", 11/2/2009  
Massachusetts Dep't. of Agricultural Resources Climate Change Conference - "Historical and Future Climate Changes: An Assessment of Impacts upon Massachusetts Forests and Farms", 3/28/2009  
National Newspaper interview – Earth Magazine, February 2009

### 2008:

Boston Cares, Boston, MA - "Confronting Climate Change in Massachusetts: An Assessment of Climate Impacts upon the Northeast", 9/15/2008  
Center for Talented Youth's Science and Technology Series at Boston University, Boston, MA - "Weather and Climate Change in the Northeast An Assessment of Climate Impacts upon the Northeast", 11/26/2008

### 2007:

Medfield Climate Change Action Committee Forum on Climate Change Panelist, 5/11/2007  
Mass. State Senate Committee on Global Warming and Climate Change Testimony, 4/25/2007  
Regional-area Newspaper interview – Bangor Daily News, 2/8/2007

### 2006:

Boston-area Newspaper interview – North Andover Eagle-Tribune, 12/4/2006  
National Newspaper interview – Reuters, 10/3/2006  
National Newspaper interview - Discovery Channel News, 4/20/06  
National Newspaper interview - Washington Post, 4/28/06  
Boston-area Newspaper interview – Daily Free Press, 10/3/2006

### 2002 - 2004:

New England TV interview – Comcast CN8 Newsmakers, 8/04  
Boston-area Newspaper interview – The Salem News, 4/2/03  
National Newspaper interview – The Boston Globe, 6/12/03  
Boston University's LERNet ScienceLab Program in Advanced Geographic Technologies  
Boston-area Newspaper interview – BU Bridge  
Boston-area radio interview – K BUR

## **Reviewer**

### 2010:

5 Refereed Journal Article Reviews (*J. Climate*; *J. Hydromet.*, *Met Zeit.*)  
18 Refereed Proposal Reviews – NSF, DOE, NERC

### 2009:

5 Refereed Journal Article Reviews (*J. Climate*; *J. Hydromet.*, *Geophys. Res. Lett.*; *Clim.Dyn.*)  
4 Refereed Proposal Reviews – NSF, DOE

### 2008:

4 Refereed Journal Article Reviews (*J. Climate*; *J. Hydromet.*)  
1 Refereed Proposal Review – NSF

### 2007:

4 Refereed Journal Article Reviews (*J. Climate*; *J. Geophys. Res.*; *J. Hydromet.*)  
1 Refereed Proposal Review – NSF

2006:

7 Refereed Journal Article Reviews (*J. Climate; Int. J. of Climatology; J. Geophys. Res.; Glob. Planet. Change; J. Hydromet.; Geophys. Res. Lett.*)

4 Refereed Proposal Reviews – NSF/DOE, NSF/OCE

2005:

7 Refereed Journal Article Reviews (*Water Resour. Res.; J. Climate; J. Hydrometeor.; Int. J. of Climatology; Wea. and Forecasting*)

3 Refereed Proposal Reviews – NOAA, NASA

2002-2004:

6 Refereed Journal Article Reviews (*J. Climate; Wea. and Forecasting, Inter. J. Climatology*)

4 Refereed Proposal Review – NSF, NOAA