BENJAMIN R. LINTNER
Rutgers, The State University of New Jersey
Department of Environmental Sciences
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EDUCATION:

Ph.D., Physics, University of California-Berkeley, Berkeley, CA, 05/2003.
Dissertation: *Mechanisms of Passive Tracer Interhemispheric Transport: An Analysis of Model-Derived and Observational Interhemispheric Transport Climatology and Interannual Variations*
Advisors: Inez Y. Fung (Department of Earth and Planetary Sciences) and Richard Muller (Department of Physics).

B.S. (*summa cum laude*), Physics, Texas A&M University, College Station, TX, 05/1997.

ACADEMIC EMPLOYMENT:

Associate Professor, 07/2015-present
Department of Environmental Sciences, Rutgers, The State University of New Jersey, New Brunswick, NJ

Assistant Professor, 07/2009-06/2015
Department of Environmental Sciences, Rutgers, The State University of New Jersey, New Brunswick, NJ

Assistant Researcher III, 07/2009-08/2009
Department of Atmospheric and Oceanic Sciences and Institute of Geophysics and Planetary Physics, University of California Los Angeles, Los Angeles, CA (Supervisor: J. David Neelin)

Assistant Researcher I, 03/2006-06/2009
Department of Atmospheric and Oceanic Sciences and Institute of Geophysics and Planetary Physics, University of California Los Angeles, Los Angeles, CA (Supervisor: J. David Neelin)

Postdoctoral Scholar, 08/2005-02/2006
Department of Atmospheric and Oceanic Sciences and Institute of Geophysics and Planetary Physics, University of California Los Angeles, Los Angeles, CA (Supervisor: J. David Neelin)

Postdoctoral Scholar, 08/2003-07/2005
Department of Geography, University of California Berkeley, Berkeley, CA (Supervisor: John C. H. Chiang)

Graduate Student Researcher, 06/1999-03/2003
Carbon-Climate Interactions Group, University of California Berkeley, Berkeley, CA (Advisor: Inez Y. Fung)

Graduate Student Instructor, 08/1997-12/2000
Department of Physics. University of California Berkeley, Berkeley, CA

•*Courses:* Mechanics (2 semesters), Electricity and Magnetism (3 semesters), Quantum Mechanics (1 semester), and Statistical Mechanics (1 semester).

Head Graduate Student Instructor, 08/1997-12/1997
Department of Physics, University of California Berkeley, Berkeley, CA

•*Responsibilities:* Administrative duties; leading weekly course meetings with graduate student instructors and professors; grading.

AWARDS AND HONORS:

American Geophysical Union Editor's Citation for Excellence in Refereeing, EOS, 2011.

Outstanding Graduate Student Instructor, University of California Berkeley, 2000.

University and Foundation Honors, Texas A&M University, 1997.

President's Endowed Scholarship, Texas A&M University, 1993-1997.

National Merit Scholar, 1993.

PUBLICATIONS:
**Denotes postdoctoral researcher, graduate student, or undergraduate student*

ARTICLES IN REFEREED JOURNALS:

[60] Berg, A.M., **B.R. Lintner**, K.L. Findell, and A. Giannini, Uncertain soil moisture feedbacks in model projections of Sahel precipitation, *Geophys. Res. Lett., 44*, 6124—6133, doi: 10.1002/2017GL073851, 2017.

[59] Berg, A.M., **B.R. Lintner**, K.L. Findell, and A. Giannini, Soil moisture influence on seasonality and large-scale circulation in simulations of the West African Monsoon, *J. Clim., 30*, 2295—2317, doi:10.1175/JCLI-D-0877.1, 2017.

[58] Loikith, P.C., **B.R. Lintner**, and A. Sweeney, Characterizing large-scale meteorological patterns and associated temperature and precipitation extremes over the Northwestern United States using self-organizing maps, *J. Clim. 30,* 2829—2847, doi: 10.1175/JCLI-D-16-0670.1, 2017.

[57] **Lintner, B.R.**, D. K. Adams, K. A. Schiro, A. M. Stansfield*, A. Amorim Rocha, and J. D. Neelin, Relationships among climatological vertical moisture structure, column water vapor, and precipitation over the central Amazon in observations and CMIP5 models, *Geophys. Res. Lett., 44*, 1981–1989, doi:10.1002/2016GL071923.

[56] **Lintner, B.R.**, B. Langenbrunner, J.D. Neelin, B.T. Anderson, M.J. Niznik, G. Li, and S.-P. Xie, Characterizing CMIP5 model spread in simulated rainfall in the Pacific Intertropical Convergence and South Pacific Convergence Zones. *J. Geophys. Res. Atmos., 121*, 11,590—11,607, 2016.

[55] Schiro, K.A., J.D. Neelin, D.K. Adams, and **B.R. Lintner**, Deep Convection and Column Water Vapor over Tropical Land vs. Tropical Ocean: A comparison between the Amazon and the Tropical Western Pacific. *J. Atmos. Sci. 73*, 4043—4063, doi: 10.1175/JAS-D-16-0119.1, 2016.

[54] Berg, A.M, K.L. Findell, **B.R. Lintner**, A. Giannini, S.I. Seneviratne, B. van den Hurk, R. Lorenz, A. Pitman, S. Hagemann, A. Meier, F. Cheruy, A. Ducharne, S. Malyshev, and P.C.D. Milly, 2016: Land-atmosphere feedbacks amplify aridity increase over land under global warming. *Nature Climate Change, 6,* 869—874, doi:10.1038/nclimate3029, 2016.

[53] Loikith, P.C., D.E. Waliser, H. Lee, J.D. Neelin, B.R. Lintner, S. McGinnis, L.O. Mearns, and J. Kim, Evaluation of the ability of the NARCCAP ensemble of regional climate simulations to represent large-scale meteorological patterns associated with extreme temperatures. *Clim. Dyn., 45*, 3257—3254, doi:10.1007/s00382-015-2537-x, 2015.

[52] Park, H.-S., B.R. Lintner, W.R. Boos, and K.-H. Seo, The effect of mid-latitude transient eddies on monsoonal southerlies over East China. *J. Clim., 28*, 8450—8465, doi:10.1175/JCLI-D-15-0133.1, 2015.

[51] Langenbrunner, B., J.D. Neelin, B.R. Lintner, and B.T. Anderson, Patterns of precipitation change and climatological uncertainty among CMIP5 models, with a focus on the midlatitude Pacific storm track. *J. Clim., 28*, 7857—7872, doi:10.1175/JCLI-D-14-00800.1, 2015.

[50] Findell, K.L., P. Gentine, **B.R. Lintner**, and B. Guillod, Data length requirements for observational estimates of land-atmosphere coupling strength. *J. Hydrometeor, 16*, doi:10.1175/JHM-D-14-0131.1, 2015.

[49] Alter, R. E., Y. Fan, **B. R. Lintner**, and C. P. Weaver, Observational evidence for the influence of irrigation on summer precipitation intensity and totals in the Midwestern US. *J. Hydrometeor., 6,* 1717—1735, doi:10.1175/JHM-D-140115.1, 2015.

[48] Niznik, M.J.*, **B.R. Lintner**, A.J. Matthews, and M.J. Widlansky, The role of tropical-extratropical interaction and synoptic variability in maintaining the South Pacific Convergence Zone in CMIP5 models. *J. Clim*., *28*, 3353—3374, doi:10.1175/JCLI-D-14-00527.1, 2015.

[47] Anderson, B.T., **B.R. Lintner**, B. Langenbrunner, J.D. Neelin, E. Hawkins, and J. Syktus, Sensitivity of terrestrial precipitation trends to the structural evolution of sea surface temperature. *Geophys. Res. Lett., 42*, 1190—1196, doi:10.1002/2014GL062593, 2015.

[46] Loikith, P.C., D.E. Waliser, J. Kim, H. Lee, J.D. Neelin, **B.R. Lintner**, S. McGinnis, C. Mattmann, and L.O. Mearns, Surface temperature probability distribution functions in the NARCCAP Hindcast Experiment: Evaluation methodology, metrics, and results. *J. Clim.,* 28, 978—997, doi:10.1175/JCLI-D-13-00457.1, 2015.

[45] Berg, A.M.*, **B.R. Lintner**, K.L. Findell, S.I. Seneviratne, B. van den Hurk, F. Cheruy, S. Hagemann, D.M. Lawrence, S. Malyshev, A. Meier, and P. Gentine, Interannual coupling between summertime surface temperature and precipitation: processes and implications for climate change. *J. Clim., 28,* 1308—1328, doi:10.1175/JCLI-D-14-00324.1, 2015.

[44] **Lintner, B.R.**, P. Gentine, K.L. Findell, and G.D. Salvucci, The Budyko and complementary relationships in an idealized model of large-scale land-atmosphere coupling. *Hydrol. Earth Sys. Sci., 19*, 2119—2131, doi:10.5194/hess-19-2119-2015, 2015.

[43] Rochetin, N., **B. R. Lintner**, K. L. Findell, A. H. Sobel, and P. Gentine, Radiative convective equilibrium over a land surface. *J. Clim.*, 27, doi:10.1175/JCLI-D-13-00654.1, 8611—8629, 2014.

[42] *Berg, A. M., **B. R. Lintner**, K. L. Findell, S. Malyshev, P. C. Loikith, and P. Gentine, Impact of soil moisture-atmosphere interactions on surface temperature distribution. *J. Clim.*, *27*, 7976—7993, doi:10.1175/JCLI-D-13-00591.1, 2014.

[41] D'Andrea, F., P. Gentine, A. K. Betts, and **B. R. Lintner**, Triggering deep convection with a probabilistic plume model. *J. Atmos. Sci.*, *71*, 3881—3901, doi:10.1175/JAS-D-13-0340.1, 2014.

[40] Patra, P. K., M. C. Krol, S. A. Montzka, T. Arnold, E. L. Atlas, **B. R. Lintner**, B. B. Stephens, B. Xiang, J. W. Elkins, P. J. Fraser, A. Ghosh, E. J. Hintsa, D. F. Hurst, K. Ishijima, P. B. Krummel, B. R. Miller, K. Miyazaki, F. L. Moore, J. Mühle, S. O'Doherty, R. G. Prinn, L. P. Steele, M. Takigawa, H. J. Wang, R. F. Weiss, S. C. Wofsy, and D. Young, Observational evidence for interhemispheric hydroxyl parity. *Nature*, *513*, 219—223, doi:10.1038/nature13721, 2014.

[39] *Mantsis, D. F., **B. R. Lintner**, A. J. Broccoli, A. C. Clement, M. P. Erb, and H.-S. Park, The response of large-scale circulation to obliquity-induced changes in meridional heating gradients. *J. Clim., 27*, 5504—5516, doi: 10.1175/JCLI-D-13-00526.1, 2014.

[38] Guillod, B. P., B. Orlowsky, D. Miralles, A. J. Teuling, P. Blanken, N. Buchmann, P. Ciais, M. Ek, K. L. Findell, P. Gentine, **B. R. Lintner**, R. L. Scott, B. van den Hurk, and S. Seneviratne, Land surface controls on afternoon precipitation diagnosed from observational data: Uncertainties, confounding factors and the possible role of vegetation interception. *In press at Atm. Chem. Phys.*, *14*, 8343—8367, doi:10.5194/acp-14-8343-2014, 2014.

[37] Aires, F., K. L. Findell, P. Gentine, **B. R. Lintner**, and C. Kerr, Neural network-based sensitivity analysis of summertime convection over the continental US. *J. Clim., 27,* 1958—1979, doi:10.1175/JCLI-D-13-00161.1, 2014.

[36] *Niznik, M. J., and **B. R. Lintner**, Circulation, moisture, and precipitation relationships along the South Pacific Convergence Zone in CMIP5 models. *J. Clim., 26,* 10174—10192, doi:10.1175/JCLI-D-13-00263.1, 2013.

[35] Loikith, P. C., **B. R. Lintner**, J. Kim, H. Lee, J. D. Neelin, and D. E. Waliser, Classifying reanalysis surface temperature probability distribution functions (pdfs) over North America with cluster analysis. *Geophys. Res. Lett., 40,* 3710—3714, doi:10.1002/grl.50688, 2013.

[34] *Mantsis, D. F., **B. R. Lintner**, A. J. Broccoli, and M. Khodri, Mechanisms of Mid-Holocene precipitation change in the South Pacific Convergence Zone. *J. Clim., 26*, 6937—6953, 10.1175/JCLI-D-12-00674.1, 2013.

[33] Gentine, P., A. K. Betts, K. L. Findell, **B. R. Lintner**, C.C. van Heerwaarden, and F. D'Andrea, A probabilistic-bulk model of mixed layer and convection: 2) Shallow convection case. *J. Atmos. Sci., 70,* 1557—1576, 10.1175/JAS-D-12-0146.1, 2013.

[32] Gentine, P., A. K. Betts, K. L. Findell, **B. R. Lintner**, C.C. van Heerwaarden, A. Tzella, and F. D'Andrea, A probabilistic-bulk model of mixed layer and convection: 1) Clear-sky case. *J. Atmos. Sci., 70*, 1543—1556, 10.1175/JAS-D-12-0145.1, 2013.

[31] *Berg, A., K. L. Findell, **B. R. Lintner**, P. Gentine, and C. Kerr, Precipitation sensitivity to surface heat fluxes over North America in reanalysis and models. *J. Hydrometeor., 14,* 722–743, doi:10.1175/JHM-D-12-0111.1, 2013.

[30] Su, H., R. E. Dickinson, K. L. Findell, and **B. R. Lintner**, How are spring snow conditions in central Canada related to early warm season precipitation? *J. Hydrometeor., 14,* 787–807, doi:10.1175/JHM-D-12-029.1, 2013.

[29] **Lintner, B. R**., P. Gentine, K. L. Findell, F. D'Andrea, A. H. Sobel, and G. D. Salvucci, An idealized prototype for large-scale land-atmosphere coupling. *J. Clim., 26, 2379-2389,* doi:10.1175/JCLI-D-11-000561.1, 2013.

[28] **Lintner, B. R.**, G. Bellon, A. H. Sobel, D. Kim, and J. D. Neelin, Implementation of the Quasi-Equilibrium Tropical Circulation Model 2 (QTCM2): Global simulations and convection sensitivity to free tropospheric moisture. *J. Adv. Model. Earth Sys., 4,* M12002, doi:10.1029/2012MS000174, 2012.

[27] Gentine, P., P. D'Odorico, **B. R. Lintner**, G. Sivandran, and G. Salvucci, Interdependence of climate, soil, and vegetation as constrained by the Budyko curve. *Geophys. Res. Lett., 39,* L19404, doi:10.1029/2012GL053492, 2012.

[26] Lee, J.-E., **B. R. Lintner**, J. D. Neelin, X. Jiang, P. Gentine, C. K. Boyce, J. B. Fisher, J. T. Perron, T. L. Kubar, J. Lee, and J. Worden, Reduction of tropical land region precipitation variability via transpiration. *Geophys. Res. Lett., 39*, L19704, doi:10.1029/2012GL053417, 2012.

[25] Lee, J.-E., C. Risi, I. Y. Fung, J. R. Worden, R. Scheepmaker, **B. R. Lintner**, and C. Frankenberg, Asian monsoon hydrometeorology from TES and SCIAMACHY water vapor isotope measurements and LMDZ simulations: Implications for speleothem climate record interpretation. *J. Geophys. Res.-Atmos., 117,* D151112, doi:10.1029/2011JD017133, 2012.

[24] **Lintner, B. R**., M. Biasutti, N. S. Diffenbaugh, J.-E. Lee, *M. J. Niznik, and K. L. Findell, Amplification of wet and dry month occurrence over tropical land regions in response to global warming. *J. Geophys. Res.-Atmos., 117,* D11106, doi:10.1029/2012JD017499, 2012. [Featured as a *Nature* research highlight in May 2012; see http://www.nature.com/nature/journal/v485/n7396/full/485008b.html]

[23] Gentine, P., T. J. Troy, **B. R. Lintner**, and K. L. Findell, Scaling in surface hydrology. *J. Contemp. Water Res. Education, 47,* 28—40, 2012.

[22] McNeeley, S., and co-authors, Catalyzing frontiers in water-climate-society research: A view from early career scientists and junior faculty. *Bull. Amer. Meteor. Soc., 93,* 477—484, 2012.

[21] Rodgers, K. B., S. E. Fletcher, C. Beaulieu, D. Bianchi, E.D. Galbraith, A. Gnanadesikan, A. G. Hogg, D. Iudicone, **B. R. Lintner**, T. Naegler, P. J. Reimer, J. L. Sarmiento, R. D. Slater, and X. Zhiang, Atmospheric radiocarbon reveals natural variability of Southern Ocean winds. *Clim. of the Past, 7,* 1123—1138, doi:10.5194/cp-7-1123-2011, 2011.

[20] Lee, J. E., **B. R. Lintner**, R. C. K. Boyce, and P. J. Lawrence, Land use change exacerbates tropical South American drought by sea surface temperature variability. *Geophys. Res. Lett. 38,* L19706, doi:10.1029/2011GL049066, 2011.

[19] **Lintner, B. R.**, C. E. Holloway, and J. D. Neelin, Column water vapor statistics and their relationship to deep convection and vertical and horizontal circulation and moisture structure at Nauru. *J. Clim*., 24, 5454—5466, 2011.

[18] Findell, K. L., P. Gentine, **B. R. Lintner**, and C. Kerr, Probability of afternoon precipitation in eastern US and Mexico enhanced by higher evaporation. *Nature Geosci*., *4*, 434—439, doi: 10.1038/ngeo1174, 2011.

[17] **Lintner, B. R.,** and J. D. Neelin, Tropical South America/Atlantic sector convective margins and their relationship to low-level inflow. *J. Clim*., *23*, 2671—2685, doi:10.1175/2009JCLI3301.1, 2010.

[16] Neelin, J. D., **B. R. Lintner**, B. Tian, Q.-B. Li, L. Zhang, P. K. Patra, M. T. Chahine, and S. N. Stechmann, Long tails in deep columns of natural and anthropogenic tracers. *Geophys. Res. Lett*., *37*, L05804, doil:10.1029/2009GL041276, 2010.

[15] Park, H.-S., J. C. H. Chiang, **B. R. Lintner**, and G. J. Zhang, The delayed effect of major El Niño events on Indian monsoon rainfall. *J. Clim.*, *23*, 932—946, 2010.

[14] Lee, J.-E., R. Pierrehumbert, A. Swann, and **B. R. Lintner**, Sensitivity of stable water isotopic values to convective parameterization schemes. *Geophys. Res. Lett., 36*, L23801, 2009GL040880, 2009.

[13] **Lintner, B. R.,** and J. D. Neelin, Soil moisture impacts on convective margins. *J. Hydrometeor*., *10*, 1026—1039, 2009.

[12] Patra, P. K., M. Takigawa, G. S. Dutton, K. Uhse, K. Ishijima, **B. R. Lintner**, K. Miyazaki, and J. W. Elkins, Transport mechanisms for synoptic, seasonal and interannual SF_6 variations and "age" of air in the troposphere. *Atmos. Chem. Phys*., *9*, 1209—1225, 2009.

[11] **Lintner, B. R.,** and J. D. Neelin, Eastern margin variability of the South Pacific Convergence Zone. *Geophys. Res. Lett*., *35*, L16701, doi:10.1029/2008GL034298, 2008.

[10] **Lintner, B. R.,** and J. D. Neelin, Time scales and spatial patterns of passive ocean-atmosphere decay modes. *J. Clim., 21*, 2187—2203, 2008.

[9] **Lintner, B. R.,** and J. C. H. Chiang, Adjustment of the remote tropical climate to El Niño conditions. *J. Clim., 20*, 2544—2557, doi:10.1175/JCLI4138.1, 2007.

[8] **Lintner, B. R.,** and J. D. Neelin, A prototype for convective margin shifts. *Geophys. Res. Lett., 34*, L05812, doi:10.1029/2006GL027305, 2007.

[7] Buermann, W., **B. R. Lintner**, C. D. Koven, A. Angert, J. E. Pinzon, C. J. Tucker, and I. Y. Fung, The changing carbon cycle at Mauna Loa Observatory. *Proc. Nat. Acad. Sci., 104* , 4249—4254, doi:10.1073/pnas.0611224104, 2007.

[6] **Lintner, B. R.,** W. Buermann, C. D. Koven, and I. Y. Fung, Seasonal circulation and Mauna Loa CO_2 variability. *J. Geophys. Res.-Atmos.*, *111*, D13104, doi:10.1029/2005JD006535, 2006.

[5] **Lintner, B. R.,** and J. C. H. Chiang, Reorganization of tropical climate during El Niño: A weak temperature gradient approach. *J. Clim.*, *18*, 5312—5329, doi:10.1175/JCLI3580.1, 2005.

[4] Chiang, J. C. H., and **B. R. Lintner**, Mechanisms of remote tropical surface warming during El Niño. *J. Clim.*, *18*, 4130—4149, doi:10.1175/JCLI3529.1, 2005.

[3] Buermann, W., **B. R. Lintner**, and C. Bonfils, A wintertime Arctic Oscillation influence on early season Indian Ocean monsoon intensity. *J. Clim.*, *18*, 2247—2269, doi:10.1175/JCLI3377.1, 2005.

[2] **Lintner, B. R.,** A. B. Gilliland, and I. Y. Fung, Mechanisms of convection induced modulation of passive tracer interhemispheric transport interannual variability. *J. Geophys. Res.-Atmos., 109*, D13102, doi:1029/2003JD004306, 2004.

[1] **Lintner, B. R.**, Characterizing global CO_2 interannual variability with empirical orthogonal function/principal component (EOF/PC) analysis. *Geophys. Res. Lett.*, *29*, 1921, doi:102910/2001GL014419, 2002.

REPORTS:

[2] Santanello, J. A., C. Ferguson, M. Ek, P. Dirmeyer, O. Tuinenburg, C. Jacobs, C. van Heerwarden, K. Findell, P. Gentine, and **B. Lintner**, Local land-atmosphere coupling (LoCo) research: Status and results. *GEWEX NEWS, 21*, 7—9, 2011.

[1] Ganachaud, A., and co-authors, *Southwest Pacific Ocean Circulation and Climate Experiment (SPICE)—Part II. Science Implementation Plan*, NOAA Special Report, 2008.

REVISED, SUBMITTED, OR IN-PREPARATION:

[5] **Lintner, B.R.**, and W. Boos, Atmospheric energy transport perspective on South Pacific Convergence Zone variability associated with the El Niño/Southern Oscillation, *In preparation,* 2017.

[4] Gentine, P., **B.R. Lintner**, S.H. Alemohammad, R. Fu, J.K. Green, D. Kennedy, A. Massmann, and J. V.-G. de Arellano, Land-atmosphere interactions in the tropics, *Submitted to Adv. Water Resour.,* 2017.

[3] Zilli, M., L. Carvalho, and **B.R. Lintner**, The poleward shift of the South Atlantic Convergence Zone in recent decades, *Submitted to Clim. Dyn.,* 2017.

[2] Anderson, B.T., N. Feldl, and **B.R. Lintner**, Emergent behavior of Arctic precipitation in response to enhanced Arctic warming, *Revised for J. Geophys. Res. Atmos.,* 2017.

[1] Findell, K.L., A.M. Berg, P. Gentine, J. Krasting, **B.R. Lintner**, S. Malyshev, J. Santanello, and E. Shevliakova, The impact of historical land use/land cover change on regional climate extremes, *Revised for Nature Communications,* 2017.

PRESENTATIONS:

**Postdoctoral researcher or graduate student*

54th Association of Tropical Biology and Conservation Meeting, Merida, Mexico, 07/11/17: "Current-generation climate change projections over different tropical ecosystems" (invited talk).

8th Northeast Tropical Workshop, Rensselaerville, NY, 06/21/17: "Vertical moisture structure, column water vapor, and precipitation over the Central Amazon" (talk).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/16/16: "Decadal variability of the position and strength of the South Atlantic Convergence Zone and its relationship to precipitation variability and extremes over Southeastern Brazil" (co-author; poster by M. Zilli).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/15/16: "A spatial perspective on droughts and pluvials in the tropics and their relationship to ENSO in CMIP5 model simulations" (co-author; poster by J.D. Perez-Arango*).

Morton K. Blaustein Dept. of Earth & Planetary Sciences, Johns Hopkins University, Baltimore, MD, 03/30/16: "South Pacific Convergence Zone variability and biases in models" (invited talk).

Centro de Ciencias de la Atmosfera, Universidad Nacional Autonoma de Mexico, Mexico City, MX, 01/29/16: "An idealized prototype for large-scale land-atmosphere coupling" (invited talk).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/15/15: "Systematic characterization of CMIP5 model spread in simulated tropical Pacific rainfall" (poster).

11th International Conference on Southern Hemisphere Meteorology and Oceanography, Santiago, Chile, 10/09/15: "Application of self-organizing maps to observed and simulated daily precipitation over the tropical and southern Pacific Ocean" (talk).

7th Northeast Tropical Workshop, Dedham, MA, 06/11/15: "Synoptic variability and extratropical-tropical interaction along the South Pacific Convergence Zone (SPCZ)" (talk).

Monsoons: Past, Present, and Future Workshop, Pasadena, CA, 05/21/15: "The role of soil moisture in the West African monsoon" (talk).

2015 Environmental System Science (ESS) PI Meeting, Potomac, MD, 04/28/15: "Ecophysiological controls on Amazonian precipitation seasonality and variability" (poster).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/18/14: "The Budyko and complementary relationships in an idealized model of large-scale land-atmosphere coupling" (poster).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/15/14: "Response of the South Pacific Convergence Zone to imposed circulation and moisture perturbations in an intermediate level complexity model" (co-author; poster by M. J. Niznik*).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/15/14: "Application of Self-organizing Maps to Observed and Simulated Daily Precipitation over the Tropical and Southern Pacific Ocean" (co-author; poster by M. Pike*).

Yale Climate and Energy Institute, Yale University, New Haven, CT, 10/27/14: "South Pacific Convergence Zone (SPCZ) variability and biases in models" (invited talk).

Centro de Investigaciones Geofísicas, Universidad de Costa Rica, San Jose, Costa Rica, 03/18/2014: "South Pacific Convergence Zone (SPCZ) variability and biases in models" (invited talk).

School of Marine and Atmospheric Sciences Seminar, SUNY-Stony Brook, Stony Brook, NY, 02/12/14: "South Pacific Convergence Zone (SPCZ) variability and biases in a hierarchy of models" (invited talk).

Workshop on Tropical Dynamics and the MJO, Honolulu, HI, 01/15/14: "South Pacific Convergence Zone (SPCZ) variability and biases in a hierarchy of models" (talk).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/12/13: "Circulation, moisture, and precipitation relationships along the South Pacific Convergence Zone in reanalyses and CMIP5 models" (co-author; poster by M. J. Niznik*).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/09/13: "Impact of soil moisture-atmosphere interactions on surface temperature distribution" (co-author; talk by A. M. Berg*).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/09/13: "The Budyko and complementary relationships in the large-scale coupled land-atmosphere system" (poster).

US CLIVAR Extremes Workshop, Berkeley, CA, 08/21/2013: "Impact of land-atmosphere interactions on surface temperature distributions" (poster).

MIT Atmospheric Sciences Seminar, Massachusetts Institute of Technology, Cambridge, MA, 04/22/2013: "Controls on South Pacific Convergence Zone (SPCZ) convection and its variability" (invited talk).

Berkeley Atmospheric Sciences Center, University of California, Berkeley, CA, 03/19/2013: "Controls on South Pacific Convergence Zone (SPCZ) convection and its variability" (invited talk).

Department of Earth and Atmospheric Sciences seminar, Cornell University, Ithaca, NY, 10/03/2012: "Controls on South Pacific Convergence Zone (SPCZ) convection and its variability" (invited talk).

1st Pan-GASS Workshop, Boulder, CO, 09/12/2012: "An idealized prototype for large-scale land-atmosphere coupling" (talk).

IGAC/SPARC Chemistry-Climate Modeling and Evaluation Workshop, Davos, Switzerland, 05/22/2012: "Genesis and morphology of long-tailed tracer anomaly probability distribution functions in the troposphere" (talk).

10th International Conference on Southern Hemisphere Meteorology and Oceanography, Noumèa, New Caledonia, 04/25/2012: "Low-level wind, moisture, and precipitation relationships near the South Pacific Convergence Zone in CMIP3/CMIP5 models" (co-author; talk by M. J. Niznik*).

10th International Conference on Southern Hemisphere Meteorology and Oceanography, Noumèa, New Caledonia, 04/25/2012: "Interpreting precipitation changes between present-day and mid-Holocene conditions in the South Pacific Convergence Zone (SPCZ)" (talk).

NASA Jet Propulsion Laboratory, Pasadena, CA, 01/10/2012: "Diagnosing circulation, moisture, and precipitation relationships along the South Pacific Convergence Zone (SPCZ)" (invited talk).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/09/2011: "On-going land use change exacerbates tropical South American drought by sea surface temperature variability" (co-author; poster by J.-E. Lee).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/07/2011: "A probabilistic-bulk model of shallow convection over land" (co-author; poster by P. Gentine).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/07/2011: "Assessing the evaporation-precipitation feedback over North America in GFDL's AM2.1 atmospheric model" (co-author; poster by A. Berg*).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/05/2011: "Changes in wet and dry extremes of tropical land region monthly precipitation distributions under global warming" (talk).

NASA Sounder Science Team Meeting, Greenbelt, MD, 11/09/2011: "Morphology and genesis of long-tailed tropospheric tracer anomaly distributions" (talk).

Lamont-Doherty Earth Observatory, Palisades, NY, 05/20/2011: "Diagnosing low-level-wind-moisture-precipitation relationships along tropical convective margins" (invited talk).

Geophysical Fluid Dynamics Laboratory, Princeton, NJ, 03/17/2011: "Morphology and genesis of long-tailed tracer anomaly probability distribution functions (pdfs) in the troposphere" (invited talk).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/17/2010: "Genesis and quantitative characteristics of long-tailed tracer anomaly probability distribution functions (pdfs) in the troposphere" (poster).

European Geosciences Union General Assembly 2010, Vienna, Austria, 05/03/2010: "A new assessment of land-atmosphere feedback strength" (co-author; talk by K. Findell).

Department of Applied Physics and Applied Mathematics, SEAS Colloquium in Climate Science, Columbia University, New York, NY, 01/28/2010: "Insights into dynamics and convection inferred from tropospheric tracers" (invited talk).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/14/2009: "Diagnosing inflow-moisture-precipitation relationships along the South Pacific Convergence Zone" (poster).

Joint iLEAPS/GEWEX Early Career Scientists Workshop, Melbourne, Australia, 08/2009, "Stable water isotopes and convective parameterization" (co-author; poster by J.-E. Lee).

MOCA-09 Joint Assembly, Montreal, Canada, 07/27/2009: "Tropical convective margins" (co-author; talk by J.D. Neelin).

American Geophysical Union Spring Meeting, Toronto, Canada, 05/25/2009: "Diagnosing low-level-inflow-wind-moisture-precipitation relationships along tropical convective margins" (talk).

American Geophysical Union Spring Meeting, Toronto, Canada, 05/25/2009: "The transition to strong convection in observations and models (co-author; talk by J.D. Neelin).

Department of Atmospheric and Oceanic Sciences, University of California Los Angeles, Los Angeles, CA, 05/20/2009: "Understanding controls on tropical convective margins and their variability" (invited talk).

Department of Environmental Sciences, Rutgers, The State University of New Jersey, New Brunswick, NJ, 04/15/2009: "Life on the edge (of convection zones): Convective margins theory and variability" (invited talk).

Department of Geography, University of Idaho, Moscow, ID, 04/07/2009: "Life on the edge (of convection zones): Convective margins theory and variability" (invited talk).

Department of Environmental Sciences, University of Virginia, Charlottesville, VA, 03/12/2009: "Life on the edge (of convection zones): Convective margins theory and variability" (invited talk).

89th Annual AMS Meeting, Phoenix, AZ, 01/13/2009: "Mechanisms of increasing North Indian Ocean and the Indian subcontinent precipitation after El Niño events" (co-author; talk by H.-S. Park).

Institute of Geophysics and Planetary Physics, University of California Los Angeles, Los Angeles, CA, 01/20/2009: "Understanding controls on tropical convective margins and their variability" (invited talk).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/18/2008: "Understanding controls on tropical convective margins and their variability" (poster).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/17/2008: "New statistics for precipitation-water vapor relationships for climate model evaluation" (co-author; talk by J. D. Neelin).

Department of Atmospheric Sciences, University of Illinois at Urbana-Champaign, Champaign, IL, 11/20/2008: "Life on the edge (of convection zones): Convective margins theory and variability" (invited talk).

Department of Earth Sciences, University of Southern California, Los Angeles, CA, 09/22/2008: "Understanding controls on tropical convective margins and their variability" (invited talk).

CLIVAR Sciences Symposium, Irvine, CA, 07/14/2008: "Understanding controls on tropical convective margins and their variability" (poster).

ESSL/GCD Seminar, The National Center for Atmospheric Research, Boulder, CO, 04/08/2008: "Life on the edge (of convection zones): Convective margins theory and variability" (invited talk).

University of Texas Institute of Geophysics, University of Texas at Austin, Austin, TX, 03/28/2008: "Soil moisture impacts on convective margins" (invited talk).

Department of Geological Sciences, University of Texas at Austin, Austin, TX, 03/27/2008: "Life on the edge (of convection zones): Convective margins theory and variability" (invited talk).

Nicholas School of the Environment and Earth Sciences, Duke University, Durham, NC, 03/20/2008: "Life on the edge (of convection zones): Convective margins theory and variability" (invited talk).

College of Oceanic and Atmospheric Sciences, Oregon State University, Corvallis, OR, 03/03/2008: "Life on the edge (of convection zones): Convective margins theory and variability" (invited talk).

Department of Meteorology, The Pennsylvania State University, University Park, PA, 02/21/2008: "Life on the edge (of convection zones): Convective margins theory and variability (invited talk).

Marine Studies Program Seminar, University of California, Santa Barbara, CA, 02/12/2008: "Life on the edge (of convection zones): Convective margins theory and variability (invited talk).

88th Annual AMS Meeting, New Orleans, LA, 01/23/2008: "Soil moisture impacts on convective margins" (talk).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/11/2007: "Time scales and spatial patterns of passive ocean-atmosphere decay modes" (talk).

Professor Y. L. Yung Lunch Seminar, California Institute of Technology, Pasadena, CA, 08/21/2007: "Spatiotemporal variations of tropospheric CO_2" (invited talk).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/15/2006: "Tropical inflow convective margins and their variability" (poster).

AIMES Young Scientist Network 1st Workshop, Breckenridge, CO, 06/23/2005-06/25/2005: "Circulation impacts on Mauna Loa CO2 seasonal cycle variability" (poster).

Department of Atmospheric and Oceanic Sciences, University of California Los Angeles, Los Angeles, CA, 05/27/2005: "Reorganization of tropical climate during El Niño: a weak temperature gradient approach" (invited talk).

European Geosciences Union General Assembly 2005, Vienna, Austria, 04/29/2005: "Reorganization of tropical climate during El Niño: a weak temperature gradient approach" and "The role of tropospheric temperature in the El Niño-driven surface warming over the remote tropics" (posters; co-author John C. H. Chiang).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/16/2004: "Mechanisms of remote tropical precipitation reduction during El Niño" (poster).

Department of Geography, Texas A&M University, College Station, TX, 12/07/2004: "Mechanisms of remote tropical precipitation reduction during El Niño" (invited talk).

26th Conference on Hurricanes and Tropical Meteorology, Miami, FL, 05/05/2004: "Mechanisms of remote tropical surface warming and precipitation reduction during El Niño" (talk).

American Geophysical Union Fall Meeting, San Francisco, CA, 12/09/2003: "A wintertime Arctic oscillation signature on early season Indian Ocean monsoon intensity" (poster; co-authors Wolfgang Buermann and Celine Bonfils).

23rd International Union of Geodesy and Geophysics General Assembly, Sapporo, Japan, 07/03/003: "Interannual variability of AGCM-derived passive tracer interhemispheric transport and its relationship to climate variability" (talk).

Joint Institute for the Study of the Atmosphere and Ocean, University of Washington, Seattle, WA, 08/05/2002: "Interannual variability of passive tracer interhemispheric transport in the GISS-UCB AGCM" (invited talk).

First Annual Berkeley Atmospheric Sciences Symposium, Berkeley, CA, 11/09/2001: "An Analysis of Interhemispheric Tracer Transport: Model Results and Application to CO2" (poster).

GRANTS:

Principal Investigator, *The Precipitation Response to El Niño/Southern Oscillation (ENSO) over Tropical South America: Spatial and Temporal Heterogeneity and the Role of the Land Surface*, National Science Foundation AGS-1505198 [Co-PI: Leila Carvalho (UCSB), co-I: J. Perez Arango], $459,601, 08/01/2015-07/31/2018.

Co-Investigator, *Collaborative research on ecophysiological controls on Amazonian precipitation seasonality and variability*, Department of Energy (DOE) Green Ocean Amazon campaign [Lead PI: J.-E. Lee (Brown); co-Is: P. Gentine (Columbia) and J. Berry (Carnegie Institution)], $67,933, 01/01/2014-12/31/2016.

Principal Investigator, *Controls on South Pacific Convergence Zone precipitation and its variability*, National Science Foundation AGS-1312865 [co-I: M. Niznik], $123,496, 09/01/2013-08/31/2014 [No-cost extension through 08/31/2016].

Principal Investigator, *Mechanistic interpretation of the spatial signatures of mid-Holocene precipitation over South America and the Atlantic*, National Science Foundation Paleoclimate Perspectives on Climate Change Initiative AGS-1103209 [co-PI: A. J. Broccoli], $400,814, 07/01/2011—06/30/2014 [No-cost extension through 06/30/2015].

Principal Investigator, *Quantifying the impacts of atmospheric and land surface heterogeneity and scale on soil-moisture precipitation feedback*, National Science Foundation AGS-1035986 [co-PIs: P. Gentine (Columbia) and K. L. Findell (GFDL)], $301,629, 01/01/2011—12/31/2013.

Principal Investigator, *Insights into tropical hydrologic cycle variability on multiple spatial and temporal scales*, US Department of Agriculture/New Jersey Agricultural Experiment Station Hatch Project, 01/01/2010—12/31/2015.

Co-Principal Investigator, *Drought mechanisms, teleconnections, and convective margins,* NOAA Climate Prediction Program for the Americas [PI: J. D. Neelin], 06/01/2008—05/31/2011.

Co-Investigator, *Diagnosing and improving convective processes in large-scale ocean atmosphere interaction*, NOAA Climate Variability and Predictability Program [PI: J. D. Neelin (UCLA)], 06/01/2008-05/31/2011.

TEACHING ACTIVITIES:

COURSE DEVELOPMENT:

Developed and taught a 5-day intensive short course entitled "Physics of Tropical Convection" in the Centro de Ciencias de la Atmosfera at Universidad Nacional Autonoma de Mexico in January 2016.

Developed a Byrne 1st Year seminar entitled "The Gaia Hypothesis, Climate, and Ecoystems."

Proposed and developed an undergraduate course entitled "Tropical Meteorology." Note that this course was first offered as a special topics course in Spring 2010.

Coordinated incorporation of "Weather In A Tank" demonstrations into Dynamics of the Atmosphere in Spring 2013.

COURSES TAUGHT:

New Frontiers in Earth System Science—Spring 2017, (10% Responsibility), Rutgers University, graduate

Fundamentals of Geophysical Fluid Dynamics—Spring 2017, (33% Responsibility), Rutgers University (graduate)

Graduate Student Seminar—Fall 2015; Fall 2016 (100% Responsibility), Rutgers University (graduate)

Large-scale Ocean and Atmosphere Dynamics—Spring 2015, (20% Responsibility), Rutgers University (graduate)

Byrne 1st Year Seminar: The Gaia Hypothesis, Climate, and Ecosystems—Fall 2014, (100% Responsibility), Rutgers University (undergraduate)

Thermodynamics of the Atmosphere—Fall 2011; Fall 2012; Fall 2013; Fall 2014; Fall 2015 (100% Responsibility), Rutgers University (undergraduate)

Dynamics of the Atmosphere—Spring 2011; Spring 2012; Spring 2013; Spring 2014; Spring 2015; Spring 2016; Spring 2017 (50% Responsibility), Rutgers University (undergraduate)

Tropical Meteorology—Spring 2011; Spring 2012; Spring 2013; Spring 2014; Spring 2015; Spring 2016; Spring 2017 (100% Responsibility), Rutgers University (undergraduate)

Special Topics in Meteorology: Tropical Meteorology—Spring 2010, Rutgers University (undergraduate)

POSTDOCTORAL ASSOCIATES SUPERVISED:

Dr. Kyle Clem, Rutgers University, [topics: tropical-extratropical interactions], 09/2017-present.

Dr. Damianos Mantsis, Rutgers University, [topics: paleoclimate; land-atmosphere interactions], 09/2011-07/2014.

Dr. Alexis Berg, Rutgers University, **[**topic: land-atmosphere interactions], 06/2011-10/2013.

GRADUATE STUDENTS SUPERVISED:

AS PRIMARY ADVISOR:

Chi Zhang, M.S., Rutgers University, 09/2016-present.

Sarah Tannenbaum, Ph.D., Rutgers University, 09/2016-present.

Juan Perez Arango, Ph.D., Rutgers University, 01/2014-present.

Max Pike, Ph.D., Rutgers University, 09/2013-present.

Lalitha Kommajosyula, M.S., Rutgers University, 06/2011-05/2013.

Matt Niznik, Ph.D., Rutgers University, 09/2010-02/2015.

AS COMMITTEE MEMBER:

Catherine Pomposi, Columbia University [Ph.D. thesis defense committee], 11/2016.

Zhongyu Kuang, Rutgers University [Ph.D. thesis committee], 09/2016-03/2017.

Corey Gabriel, Rutgers University [Ph.D. thesis committee], 06/2016-04/2017.

Ariel Catalano, Rutgers University [Ph.D. dissertation committee member], 09/2015-present.

Max Pike, Rutgers University [Oral comprehensive committee], 06/2015.

Juan Perez Arango, Rutgers University [Oral comprehensive committee], 06/2015.

Lori Sentman, Rutgers University [Oral comprehensive committee], 06/2014.

Jenny Kafka, Rutgers University [Oral comprehensive committee], 06/2014.

Zhongyu Kuang, Rutgers University [Oral comprehensive committee], 06/2013.

Caroline Farkas, Rutgers University [Oral comprehensive committee], 06/2013.

Lynne Trabachino, Rutgers University [Ph.D. thesis committee], 07/2012-06/2016.

Tom Collow, Rutgers University [Ph.D. thesis committee], 06/2012-03/2014.

Ross Alter, Rutgers University [Ph.D. thesis committee], 06/2012-08/2014.

Matt Niznik, Rutgers University [Oral comprehensive committee], 06/2012.

Anthony De Angelis, Rutgers University [Ph.D. thesis committee], 06/2011-01/2014.

Lynn Trabachino, Rutgers University [Oral comprehensive committee], 06/2011.

Ross Alter, Rutgers University [Oral comprehensive committee], 06/2011.

Kyle Krouse, Columbia University**,** [Ph.D. thesis defense committee], 06/2010.

Stephen Nicholls, Rutgers University [Oral comprehensive committee], 06/2010.

Zhiren Wang, Rutgers University [Oral comprehensive committee], 06/2010.

Michael Erb, Rutgers University, [Ph.D. dissertation committee member], 05/2010-11/2013.

Paul Loikith, Rutgers University, [Ph.D. dissertation committee member], 05/2010-09/2012.

INDEPENDENT STUDY:

Allison Marquardt, Rutgers University, [topic: Relationships between the position and intensity of the Atlantic Ocean ITCZ and West African monsoon], 08/2010-12/2010.

UNDERGRADUATE STUDENTS SUPERVISED:

Jonathan Falk [Cornell U.], Supervisor of independent research, 07/2016-08/2016.

Lauren Hill-Beaton, Supervisor of independent research, 06/2016-present.

Donna Brunnquell [Grinnell U.], Research mentor for Rutgers Research in Science and Engineering (RiSE) program, 06/2016-08/2016.

Kristina Mazur, Supervisor of independent research, 01/2016-05/2016.

Alexandra Skinner, Faculty sponsor of fall research internship at News 12 New Jersey, 2015.

Jonah Balla, Faculty sponsor of fall research internship at News 12 New Jersey, 2015.

Ariel Schabes, Faculty sponsor of summer research internship at News 12 New Jersey, 2015.

Jessica Ptashenchuk, Faculty sponsor of spring research internship at News 12 New Jersey, 2015.

Alyssa Stansfield, Supervisor of SEBS and George H. Cook Honors Program and Rutgers Aresty research, 08/2014-05/2017.

Ayzha Ward [Texas Southern U.], Research mentor for Rutgers Research in Science and Engineering (RiSE) program, 06/2014-07/2014.

Andrew Rohrman, Research mentor for Rutgers Aresty undergraduate research assistant program, 05/2014-05/2015.

Rebecca Evrard, Faculty sponsor of summer research internship at News 12 New Jersey, 2013.

Sherilyn Graham, Supervisor of independent research, 12/2012-06/2013.

Michael Lee, Faculty sponsor of summer research internship at NBC-40 (Atlantic City), 2012.

Alyssa Donovan, Faculty sponsor of summer research internship at WABC-TV (New York), 2011.

Faculty Advisor, Meteorology Undergraduate Program Classes of 2014, 2017.

First Year Advisor, Rutgers First Year Advising Days, New Brunswick, NJ, 05/08/2010 and 05/25/2010; First Year Orientation, 08/30/2010.

SERVICE:

WITHIN THE DEPARTMENT OF ENVIRONMENTAL SCIENCES:

Member, *Ad hoc* Nominations Committee, 01/2017-present.

Chair, Undergraduate Meteorology Program 50th Anniversary planning committee, 03/2014-04/2014.

Member, DES Space Committee, 10/2012-present.

Participant, Pursuing a Successful Career in Science Mini-Conference [sponsored by the Air and Waste Management Association], 09/27/2011.

Coordinator, DES Seminars, 07/2011-present.

Member, DES Faculty Computing Committee, 10/2010-present [**Chair** 10/2010-04/2013]

Secretary, Department of Environmental Sciences Faculty Meetings, 09/2009-05/2015.

WITHIN THE SCHOOL OF ENVIRONMENTAL AND BIOLOGICAL SCIENCES:

Organizer and moderator, "Strategies for Effective Science Communication: A Roundtable Discussion," 04/21/2016.

Member, SEBS Excellence Fellowship Selection Committee, 01/2015-04/2015; 01/2016-04/2016.

Interviewer, SEBS General Honors Program, 03/21/2012.

Participant, SEBS Open House, 11/05/2010, 04/02/2011, 11/04/2011, 04/05/2014 [presented meteorology program overview].

WITHIN THE SCHOOL OF GRADUTE STUDIES (FORMERLY, GRADUATE SCHOOL-NEW BRUNSWICK):

Member, Graduate School of New Brunswick Physical Sciences Area Committee, 09/2016-present.

Director, Graduate Program in Atmospheric Science (GPAS), 08/2014-present.

Organized a 10th Anniversary Symposium, 05/18/2017

Member, GPAS Curriculum Committee, 09/2013-present.

Member, GPAS Travel Fund Committee, 05/2013-present.

Member, GPAS Nominations Committee, 09/2010-02/2013.

WITHIN THE RUTGERS CLIMATE INSTITUTE:

Moderator, Climate change student debate, held in Professor Qingyu Meng's course on Environmental Risk Assessment in the School of Public Health, 04/13/2017.

Member, Scientific Program Committee for the 2014 Rutgers Climate Sciences Symposium, 03/2014-11/2014.

Member, Planning Committee, 2013 Rutgers Climate Institute Climate Change Education Workshop, 05/2013-10/2013.

Member, Scientific Program Committee for the 1st Rutgers Climate Sciences Symposium, 06/2012-11/2012.

Facilitator, Environmental Citizenship and Climate Change: A Workshop for Communicating Climate Change, 03/28/2012.

Selection Committee, William H. Greenberg Fellowship, New Brunswick, NJ, 06/2010-07/2010; 05/2012; 07/2015.

WITHIN THE RUTGERS INSTITUTE OF EARTH, OCEAN, AND ATMOSPHERIC SCIENCES

Co-Chair, EOAS Earth Observing and Forecasting Committee, 04/2017-present**.**

Member, EOAS Graduate Program Committee, 01/2015-present.

UNIVERSITY-WIDE:

University Representative, Consortium of Universities for the Advancement of Hydrologic Science, Inc. (CUAHSI), 02/2011-present.

University Representative, Organization for Tropical Studies (OTS) Assembly of Delegates, 02/2011-present.

PROFESSIONAL PARTICIPATION:

Panelist, NASA Roses 16 Modeling, Analysis, and Prediction Program (MAPP) panel, Arlington, VA, 01/2017.

Participant, OTS Assembly of Delegates 2017 Meeting, Las Cruces Biological Station, Costa Rica, 03/10/2017-03/11/2017.

Panelist, NSF Prediction of and Resilience against Extreme Events (PREEVENTS) virtual panel, 01/2017.

Session Co-convener (w. D.K. Adams, K. Reed, and G. Kooperman), Convection across scales: Observations, modeling, and theory, Fall AGU Meeting, San Francisco, CA, 12/16/2016.

Participant, UC Mexus Meeting on the Implementation of a GPS-Hydrometeorological Network for the North American Monsoon, Mexico City, Mexico, 09/16/2016-09/19/2016.

Participant, OTS Assembly of Delegates 2016 Meeting, La Selva Biological Station, Costa Rica, 03/11/2016-03/12/2016.

Lecturer and Participant, Alpine Summer School on Land-Atmosphere Interactions, Valsavarenche, Italy, 06/21/2015-07/02/2015.

Participant, 7th Northeast Tropical Workshop, Dedham, MA, 06/09/2015-06/12/2015.

Participant, Monsoons: Past, Present, and Future Workshop, Pasadena, CA, 05/18/2015-05/22/2015.

Participant, 2015 DOE Environmental System Science (ESS) PI Meeting, Potomac, MD, 04/28/2015-04/29/2015.

Participant, OTS Assembly of Delegates 2015 Meeting, Palo Verde Biological Station, Costa Rica, 03/13/2015-03/14/2015.

Session Co-Convener (with A. Matthews, M. Widlansky, and M. Niznik), Diagonal Convection Zones, American Geophysical Union Fall Meeting, San Francisco, CA, 12/15/2014.

Moderator, Panel on Tropical Climate, Rutgers Climate Institute Mid-Atlantic Regional Climate Symposium, 11/21/14.

Member, OTS Science Committee, 04/2014-present.

Participant, OTS Assembly of Delegates 2014 Meeting, Las Cruces Biological Station, Costa Rica, 03/14/2014-03/15/2014.

Participant, Workshop on Tropical Dynamics and the MJO, Honolulu, HI, 01/14/2014-01/16/2014.

Participant, US CLIVAR Extremes Workshop, Berkeley, CA, 08/20/2013-08/22/2013.

Participant, Pacific Islands Climate Services Forum, University of the South Pacific, Suva, Fiji, 01/21/2013-01/25/2013.

Participant, 1st Pan-GASS Workshop, Boulder, CO, 09/10/2012-09/14/2012.

Participant, IGAC/SPARC Global Chemistry-Climate Modeling and Evaluation Workshop, Davos, Switzerland, 05/21/2012-05/24/2012.

Faculty Panelist, Extreme Weather and Climate Change: How Can We Address Uncertainty? Rutgers University, New Brunswick, NJ, 03/28/2012.

Participant, OTS Assembly of Delegates 2012 Meeting, La Selva Biological Station, Costa Rica, 03/09/2012-03/11/2012.

Participant, NASA Sounder Science Team Meeting, Greenbelt, MD, 11/08/2011-11/09/2011.

Session Co-Convener (with P. Gentine and J. Santanello), Quantifying pathways of land-atmosphere coupling in models and observations, 2011 Fall AGU Meeting, San Francisco, CA.

Associate Editor, *Journal of Climate*, 06/2011-present.

Participant, Terrestrial Regional North American Hydroclimate Experiment (TRACE) community discussion workshop, Silver Spring, MD, 04/18/2011-04/20/2011.

Session Co-Convener (with J. Gurdak and S. McNeeley), Water Resource Science and Strategies for Adaptation to Climate Variability and Change, 2010 Fall AGU Meeting, San Francisco, CA, 12/14/2010.

Organizing Committee Member, NCAR Junior Faculty Forum 2010, Climate and Water: Advancing adaptation science and strategies for water resource vulnerability from climate variability and change, Boulder, CO, 10/2009-07/2010.

Participant, Second Climate Prediction Program For the Americas PI Meeting, Silver Spring, MD, 09/29/2008-10/01/2008.

Participant, Using Present-to-past Climate Reconstructions With Modeling To Improve Climate Change Forecasting Skill Workshop, University of Southern California, Los Angeles, CA, 06/25/2008.

Participant, First Climate Prediction Program For the Americas PI Meeting, Tucson, AZ, 08/14/2006-08/16/2006.

Participant, AIMES Young Scientist Network 1st Workshop, Breckenridge, CO, 06/23/2005-06/25/2005.

Session Co-Convener (with J. C. H. Chiang and A. Giannini), The Tropical ENSO Teleconnection: Observation and Mechanisms, American Geophysical Union Fall Meeting, San Francisco, CA, 12/16/2004.

Journal and Monograph Reviewer, *Journal of Climate*; *Journal of Geophysical Research-Atmospheres*; *Geophysical Research Letters; Global Biogeochemical Cycles*; *EOS*; *Atmospheric Research*; *Climate Dynamics; Proceedings of the National Academy of Sciences;* American Geophysical Union Monographs; Springer Environmental Sciences Series

Proposal Reviewer, National Science Foundation-Water, Sustainability, and Climate; National Science Foundation-Paleoclimate Perspectives on Climate Change; National Science Foundation-Graduate Fellowships; National Aeronautics and Space Administration-Research Opportunities in Space and Earth Sciences

OTHER SERVICE:

Guest Lecturer on Climate Change Impacts on New Jersey, Climate Readiness and Resilience Training for Water and Wastewater Utilities, South Monmouth Regional Sewerage Authority, 08/09-08/10/2016.

Participant, Rutgers Students for Environmental Awareness climate change panel with Professors David Hughes and Bob Kopp, 11/17/2014.

Guest Lecturer on Climate Change, Torch Club of Trenton, 10/06/2014.

Consultant, Mr. Ed O'Neill, tropical meteorology and climate in Costa Rica for a book Mr. O'Neill is writing, 05/2013.

Participant, Rutgers Day demonstrations of "Weather In A Tank", 2013, 2015, 2017.

Guest Lecturer on Climate Change, Mercer County Community College (James Kerney Campus), Trenton, NJ, 10/17/2012.

Guest Lecturer on Climate Change, Renaissance at Monroe Men's Club, Monroe, NJ, 10/14/2012.

Participant, *4-H Rutgerscience Saturday—Natural Disasters* [discussed Tropical Storms] New Brunswick, NJ, 11/19/2011.

Participant, *(Un)Natural Disasters: Race, Poverty, and Relief* Roundtable with Professors Lee Clarke, Karen O'Neill, and Rick Schroeder, Rutgers Center for Race and Ethnicity, New Brunswick, NJ, 03/25/2010.

Member, Institute of Geophysics and Planetary Physics Colloquium Committee, University of California Los Angeles, Los Angeles, CA, 08/2007-06/2008.
