

**BENJAMIN R. LINTNER**

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**EDUCATION:**

**Ph.D.**, Physics, University of California Berkeley, Berkeley, CA (May 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 (May 1997)

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**RESEARCH AND TEACHING:**

**Assistant Researcher**, March 2006-present

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)

•*Research Themes:* Theory and analysis of tropical convective margins; El Niño/Southern Oscillation (ENSO) tropical teleconnections; mechanisms of sea surface temperature decay; intermediate level complexity model development.

**Postdoctoral Scholar**, August 2005-February 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)

•*Research Themes:* Theory and analysis of tropical convective margins; ENSO tropical teleconnections; intermediate level complexity model development.

**Postdoctoral Scholar**, August 2003-July 2005

Department of Geography, University of California Berkeley, Berkeley, CA  
(Supervisor: John C. H. Chiang)

•*Research Themes:* ENSO tropical teleconnections; Mauna Loa CO<sub>2</sub> variability.

**Graduate Student Researcher**, June 1999-May 2003

Carbon-Climate Interactions Group, University of California Berkeley, Berkeley, CA  
(Advisor: Inez Y. Fung)

•*Research Themes:* Observational and model studies of tracer transport; tropospheric CO<sub>2</sub> variability.

**Graduate Student Instructor**, August 1997-December 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**, August 1997-December 1997

Department of Physics, University of California Berkeley, Berkeley, CA

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

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#### **PEER-REVIEWED JOURNAL PUBLICATIONS:**

**Lintner, B.R.**, and J.D. Neelin, Eastern margin variability of the South Pacific Convergence Zone margin. *Geophys. Res. Lett.*, **35** (16), L16701, doi:10.1029/2008GL034298, 2008.

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

**Lintner, B.R.**, and J.C.H. Chiang, Adjustment of the remote tropical climate to El Niño conditions. *J. Clim.*, **20** (11), 2544-2557, doi:10.1175/JCLI4138.1, 2007.

**Lintner, B.R.**, and J.D. Neelin, A prototype for convective margin shifts. *Geophys. Res. Lett.*, **34** (5), L05812, doi:10.1029/2006GL027305, 2007.

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** (11), 4249-4254, doi:10.1073/pnas.0611224104, 2007.

**Lintner, B.R.**, W. Buermann, C.D. Koven, and I.Y. Fung, Seasonal circulation and Mauna Loa CO<sub>2</sub> variability. *J. Geophys. Res.-Atmos.*, **111** (D13), D13104, doi:10.1029/2005JD006535, 2006.

**Lintner, B.R.**, and J.C.H. Chiang, Reorganization of tropical climate during El Niño: A weak temperature gradient approach. *J. Clim.*, **18** (24), 5312-5329, doi:10.1175/JCLI3580.1, 2005.

Chiang, J.C.H. and **B.R. Lintner**, Mechanisms of remote tropical surface warming during El Niño. *J. Clim.*, **18** (20), 4130-4149, doi:10.1175/JCLI3529.1, 2005.

Buermann, W., **B.R. Lintner**, and C. Bonfils, A wintertime Arctic Oscillation influence on early season Indian Ocean monsoon intensity. *J. Clim.*, **18** (13), 2247-2269, doi:10.1175/JCLI3377.1, 2005.

**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** (D13), D13102, doi:1029/2003JD004306, 2004.

**Lintner, B.R.**, Characterizing global CO<sub>2</sub> interannual variability with empirical orthogonal

function/principal component (EOF/PC) analysis. *Geophys. Res. Lett.*, **29** (19), 1921, doi:102910/2001GL014419, 2002.

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#### **OTHER PUBLICATIONS:**

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

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#### **PUBLICATIONS IN-PREPARATION OR IN-PROGRESS:**

**Lintner, B.R.**, and J.D. Neelin, Low-level inflow-convective margin relationships over tropical South America. *In preparation for J. Clim.*

**Lintner, B.R.**, and P.K. Patra, Effect of parameterized deep convection on interhemispheric transport of tracers. *In preparation for J. Geophys. Res.-Atmos.*

Cai, C., Q. Li, and **B.R. Lintner**, N. Livesey, A satellite perspective on the interhemispheric transport of carbon monoxide. *Submitted to J. Geophys. Res.-Atmos.*

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. *Submitted to J. Clim.*

**Lintner, B.R.**, and J.D. Neelin, Soil moisture impacts on convective margins. *Revised for J. Hydrometeor.*

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<sub>6</sub> variations and “age” of air in the troposphere. *Revised for Atmos. Chem. Phys.*

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#### **INVITED TALKS AND PRESENTATIONS (2007-PRESENT):**

Institute of Geophysics and Planetary Physics, University of California Los Angeles, Los Angeles, Los Angeles, CA, January 20<sup>th</sup>, 2009: “Understanding controls on tropical convective margins and their variability” (invited talk).

American Geophysical Union Fall Meeting, San Francisco, CA, December 18<sup>th</sup>, 2008: “Understanding controls on tropical convective margins and their variability” (poster).

Department of Earth Sciences, University of Southern California, Los Angeles, CA, September 22<sup>nd</sup>, 2008: “Understanding controls on tropical convective margins and their variability” (invited talk).

CLIVAR Sciences Symposium, Irvine, CA, July 14<sup>th</sup>, 2008: “Understanding controls on tropical convective margins and their variability” (poster).

ESSL/GCD Seminar, The National Center for Atmospheric Research, Boulder, CO, April 8<sup>th</sup>, 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, February 12<sup>th</sup>, 2008: “Life on the edge (of convection zones): Convective margins theory and variability (invited talk).

88th Annual AMS Meeting, New Orleans, LA, January 23<sup>rd</sup>, 2008: “Soil moisture impacts on convective margins” (talk).

American Geophysical Union Fall Meeting, San Francisco, CA, December 11<sup>th</sup>, 2007: “Time scales and spatial patterns of passive ocean-atmosphere decay modes” (talk).

Professor Y. L. Yung Lunch Seminar, California Institute of Technology, August 21<sup>st</sup>, 2007: “Spatiotemporal variations of tropospheric CO<sub>2</sub>” (invited talk).

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### **GRANT AND REPORT WRITING EXPERIENCE:**

**Contributor**, Southwest Pacific Ocean Circulation and Climate Experiment (SPICE)—Part II. Implementation Plan. NOAA OAR Special Report, 2008.

**Co-Principal Investigator**, Drought mechanisms, teleconnections, and convective margins. NOAA Climate Prediction Program for the Americas (J. D. Neelin, Co-Principal Investigator), 2007.

**Co-Investigator**, Diagnosing and improving convective processes in large-scale ocean atmosphere interaction. NOAA Climate Variability and Predictability Program (J. D. Neelin, Principal Investigator), 2007.

**Contributor**, Studies in ocean-land-atmosphere interaction. National Science Foundation (J. D. Neelin, Principal Investigator), 2006.

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### **SERVICE AND PARTICIPATION:**

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

**Member**, Institute of Geophysics and Planetary Physics Colloquium Committee, University of California Los Angeles, Los Angeles, CA, August 2007-June 2008.

**Participant**, AIMES Young Scientist Network 1<sup>st</sup> Workshop, Breckenridge, CO, June 23<sup>rd</sup>-25<sup>th</sup>, 2005.

**Session Co-Convener** (with John Chiang and Alessandra Giannini), The Tropical ENSO Teleconnection: Observation and Mechanisms, American Geophysical Union Fall Meeting, San Francisco, CA, December 16<sup>th</sup>, 2004.

**Reviewer**, Journal of Climate; Journal of Geophysical Research-Atmospheres; Global Biogeochemical Cycles; American Geophysical Union Monographs; Springer Environmental Sciences Series

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### **AWARDS AND HONORS:**

•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).
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