

Brian Medeiros

Contact

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Education

- Ph.D.** Atmospheric & Oceanic Sciences, UCLA, 2007.
Dissertation: Cloud-climate interactions in general circulation models.
Advisor: Bjorn Stevens
- M.S.** Atmospheric Sciences, UCLA, 2003.
- B.A.** Physics, UC Berkeley, 2000.

Research Experience

- Postdoctoral Researcher** 2007-present, UCLA DAOS,
visitor to Colorado State University, Dept. of Atmospheric Science, Center for
Multiscale Modeling of Atmospheric Processes (CMMAP, host: David Randall)
- Graduate Student Researcher** 2002-2007, UCLA DAOS
- Lab Assistant** 1999-2001, Physics Department, UC Berkeley

Teaching Experience

UCLA DAOS

Teaching Assistant, "Air Pollution," AS 2, Fall 2002.
Tutorial organizer & instructor, "A crash course in unix," September 2006.

UC Berkeley, Dept. of Physics

Teaching Assistant, "Thermodynamics, Electricity & Magnetism," Phys. 7B, Fall
2000.
Teaching Assistant, "Basic Semiconductor Circuits Lab," Phys. 111, Spring 2001.

UC Berkeley Extension

Teaching Assistant, "Introduction to Astronomy," Fall 2000.

Awards & Fellowships

- Brian Bosart Memorial Award**, DAOS, UCLA, Fall 2006.
- Edwin W. Pauley Fellowship** UCLA, 2001-2002, 2003-2004.

Refereed Publications

Medeiros, B., and B. Stevens, *in preparation*: Characterizing tropical low clouds in GCMs.

Zhang, Y., B. Stevens, **B. Medeiros** and M. Ghil, *in preparation*: Interpreting low-cloud climatology using the mixed-layer model.

Medeiros, B., B. Stevens, I. M. Held, M. Zhao, D. L. Williamson, J. G. Olson, and C. S. Bretherton, 2008: Aquaplanets, climate sensitivity, and low clouds. *J. Climate: In Press* DOI: 10.1175/2008JCLI1995.1.

Rauber, R.M., B. Stevens, J. Davison, S. Göke, O.L. Mayol-Bracero, D. Rogers, P. Zuidema, H.T. Ochs, C. Knight, J. Jensen, S. Bereznicki, S. Bordoni, H. Caro-Gautier, M. Colón-Robles, M. Deliz, S. Donaher, V. Ghate, E. Grzeszczak, C. Henry, A. Marie Hertel, I. Jo, M. Kruk, J. Lowenstein, J. Malley, **B. Medeiros**, Y. Méndez-Lopez, S. Mishra, F. Morales-García, L.A. Nuijens, D. O'Donnell, D.L. Ortiz-Montalvo, K. Rasmussen, E. Riepe, S. Scalia, E. Serpetzoglou, H. Shen, M. Siedsma, J. Small, E. Snodgrass, P. Trivej, and J. Zawislak, 2007: In the Driver's Seat: Rico and Education. *Bull. Amer. Meteor. Soc.*, 88, 1929–1937. DOI: 10.1175/BAMS-88-12-1929.

Medeiros, B., A. Hall, and B. Stevens, 2005: What controls the climatological depth of the PBL? *J. Climate*, 18(16), p. 2877-2892. DOI:10.1175/JCLI3417.

Karner, D. B., J. Levine, **B.P. Medeiros**, and R.A. Muller, 2002: Constructing a stacked benthic $\delta^{18}O$ record. *Paleoceanography*, 17(3), p. 2-1 to 2-17.

Non-refereed Publications

Karner, Daniel B., **Brian Medeiros**, Richard A. Muller, 1999: Dansgaard-Oeschger events and the 1.5-kyr cycle. Lawrence Berkeley Nat'l Lab Technical Report, LBNL-44529.

Talks

Cloud-Climate interactions in GCMs: An aquaplanet perspective. 4th Pan-GCSS Meeting on Advances in Modeling and Observing Clouds and Convection, Toulouse, France, June 2008. (invited)

Can aquaplanets predict a GCM's climate sensitivity? Colorado State University, Dept. of Atmos. Sci., October 2007.

Using aquaplanets to understand GCM climate sensitivity. CFMIP/ENSEMBLES Workshop on assessment of cloud and water vapour feedback processes in GCMs, Paris, France, April 2007.

Unraveling cloud feedbacks. NCAR Climate Modeling Section, Boulder, CO, June 2006.

Unraveling cloud feedbacks. UCLA DAOS, May 2006.

The climate sensitivity of aquaplanets. 1st Graduate Climate Conference, University of Washington Program on Climate Change, Eatonville, WA, April 2006.

How Earth-like are the aquaplanets? Climate Process Team on Low-latitude Cloud Feedbacks. GFDL, Princeton, NJ, November 2005.

Climate change experiments in an idealized GCM. UCLA DAOS Students Seminar Series, August 2005.

Workshops & Summer Schools

Center for Multiscale Modeling of Atmospheric Processes, Team Meeting,
15-17 January 2008, UCLA, Los Angeles, CA
7-9 August 2007, CSU, Fort Collins, CO
20-22 February 2007, Kauai, HI

Small Scales and Extreme Events: The Hurricane. Institute for Pure and Applied Mathematics (IPAM), UCLA, February 2007.

The Art of Climate Modeling, ASP Summer Colloquium. NCAR, Boulder, CO, June 2006

Community Climate System Model Workshop,
11th Annual, Breckenridge, Colorado, June 2006
Ninth Annual, Santa Fe, New Mexico, July 2004

Workshop on the Parameterization of the Atmospheric Boundary Layer. Lake Arrowhead, CA, June 2005.

RICO Graduate Students Program. Rain In Cumulus Over the Ocean (RICO): NSF field project, Antigua & Barbuda, West Indies, January 2005.

Modern Applied Mathematics for the Atmospheric and Oceanic Sciences, IPAM, UCLA, July 2003.

Mathematics of Subgrid-Scale Phenomena in Atmospheric and Oceanic Flows, IPAM, UCLA, February 2002.

Academic Service

Reviewer

Journal of Atmospheric Sciences, Journal of Climate, Geophysical Research Letters

UCLA DAOS Committees

computer committee (2003-2007), web committee (2003-2007)

UCLA DAOS Seminar Organizer

Student Seminar Series, Summer 2005.
AOS 272, Climate Dynamics Seminar, Fall 2003.

Chi Epsilon Pi (AOS Student Organization)

Webmaster (2003-2007), President (2001-2002)

Professional Societies

American Meteorological Society
American Geophysical Union

Conference Proceedings

- Medeiros, B. and B. Stevens, 2008: Tropical low clouds in GCMs. 4th Pan-GCSS Meeting on Advances in Modeling and Observing Clouds and Convection, Toulouse, France.
- Antoniazzi, C., B. Medeiros, and B. Stevens, 2008: A CALIOP view on low clouds. 4th Pan-GCSS Meeting on Advances in Modeling and Observing Clouds and Convection, Toulouse, France.
- Medeiros, B. and B. Stevens, 2007: Low clouds and climate sensitivity. The Akio Arakawa Symposium, San Antonio, TX, Amer. Meteor. Soc., P1.13.
- Zhang, Yunyan, B. Stevens, B. Medeiros, M. Ghil, 2005: Interpreting stratocumulus climatology using Lilly's mixed-layer theory. The Doug Lilly Symposium Posters, Atlanta, GA, Amer. Meteor. Soc., P1.28.
- Small, J., and RICO grad students, 2005: RICO Graduate Student Flight: The Island Tail Objective. San Francisco, CA. AGU
- Medeiros, B., A. Hall, and B. Stevens, 2004: What controls the climatological PBL depth? Proc. of 16th Symposium on Boundary Layers and Turbulence, Portland, ME, Amer. Meteor. Soc., 5.1.
- Medeiros B.P., A. Hall, B. Stevens, and X. Wang, 2003: What controls the climatological depth of the PBL? Extended Abstracts, 14th Symposium on Global Change and Climate Variations, Long Beach, CA, Amer. Meteor. Soc., 11.1, 4 pp.
- Hall, A., M. Hiltner, R. Hansell, J-Y. Kim, V. LaLiberte, W-L. Lee, N. Lovenduski, B. Medeiros, X. Qu, S. Wang, K-N. Liou, and B. Stevens, 2003: The Role of the Diurnal Cycle in Maintaining the Mean State of the Climate System. 14th Symposium on Global Change and Climate Variations, Long Beach, CA, Amer. Meteor. Soc., 9.3.
- Medeiros B.P., D.B. Karner, R.A. Muller, and J. Levine, 2000: The Global Ice Volume Record as Viewed Through a Benthic $\delta^{18}O$ Stack. Eos Trans. AGU, 81 (48), Fall Meet. Suppl., San Francisco, CA, Amer. Geophys. Union, Abstract OS51B-26.
- Medeiros B.P., D.B. Karner, and R.A. Muller, 1999: Dansgaard-Oeschger Events and the 1.5-kyr Cycle. Eos Trans. AGU, 80, Fall Meet. Suppl., San Francisco, CA, Amer. Geophys. Union, Abstract U21A-17.