

MICHAEL A. BRUNKE

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PROFESSIONAL EXPERIENCE

2015	The University of Arizona	Ph.D., Atmospheric Sciences
2000	The University of Arizona	M.S., Atmospheric Sciences
1998	University of Michigan	B.S., Atmospheric, Oceanic, and Space Sciences

APPOINTMENTS

1998- **Dept. of Atmospheric Sciences, The University of Arizona** (Tucson, AZ)
date *Research Scientist (2015-present), Appointed Research Specialist (2008-2015),
Classified staff Research Specialist (2000-2008), Graduate Research Assistant (1999-
2000), Graduate Teaching Assistant (1998-1999)*

PUBLICATIONS

Brunke, M. A., P. Broxton, J. Pelletier, D. Gochis, P. Hazenberg, D. M. Lawrence, L. R. Leung, G.-Y. Niu, P. A. Troch, and X. Zeng, 2015: Implementing and testing variable soil thickness in the Community Land Model version 4.5. *J. Climate*, in review.

Brunke, M. A., S. T. Stegall, and X. Zeng, 2015: A climatology of lower tropospheric humidity inversions in three reanalyses. *Atmos. Res.*, **153**, 165-187.

Brunke, M. A., Z. Wang, X. Zeng, M. Bosilovich, and C.-L. Shie, 2011: An assessment of the uncertainties in ocean surface turbulent fluxes in 11 reanalysis, satellite-derived, and combined global datasets. *J. Climate*, **24**, 5469-5493, doi:10.1175/2011JCLI4223.1.

Brunke, M. A., S. P. de Szoeko, P. Zuidema, and X. Zeng, 2010: A comparison of ship and satellite measurements of cloud properties with global climate model simulations in the southeast Pacific stratus deck. *Atmos. Chem. Phys.*, **10**, 6527-6536, doi:10.5194/acp-10-6527-2010.

Brunke, M. A., X. Zeng, V. Misra, and A. Beljaars, 2008: Integration of a prognostic sea surface skin temperature scheme into weather and climate model. *J. Geophys. Res.*, **113**, D21117, doi:10.1029/2008JD010607.

Brunke, M. A., M. Zhou, X. Zeng, and E. L. Andreas, 2006: An intercomparison of bulk aerodynamic algorithms used over sea ice with data from the SHEBA experiment. *J. Geophys. Res.*, **111**, C09001, doi:10.1029/2005JC002907.

Brunke, M. A., C. W. Fairall, X. Zeng, L. Eymard, and J. A. Curry, 2003: Which bulk aerodynamic algorithms are least problematic in computing ocean surface turbulent fluxes? *J. Climate*, **16**, 619-635.

- Brunke, M. A.**, X. Zeng, and S. Anderson, 2002: Uncertainties in sea surface turbulent flux algorithms and datasets. *J. Geophys. Res.*, **107**, 3141, doi: 10.1029/2001JC000992.
- Curry, J. A., **M. Brunke**, and 21 Co-authors, 2004: SEAFUX. *Bull. Amer. Meteorol. Soc.*, **85**, 409-424.
- Decker, M., **M. A. Brunke**, Z. Wang, K. Sakaguchi, X. Zeng, and M. G. Bosilovich, 2012: Evaluation of the reanalysis products from GSFC, NCEP, and ECMWF using flux tower observations. *J. Climate*, **25**, 1916-1944.
- Herman, B., **M. A. Brunke**, R. A. Pielke, Sr., J. R. Christy, and R. T. McNider, 2010: Satellite global and hemispheric lower tropospheric temperature annual cycle. *Remote Sensing*, **2**, 2561-2570, doi:10.3390/rs2112561.
- Misra, V., L. Marx, **M. Brunke**, and X. Zeng, 2008: The equatorial Pacific cold tongue bias in a coupled climate model. *J. Climate*, **21**, 5852-5869.
- Roberts, A., A. Craig, W. Maslowski, R. Osinski, A. Duvivier, M. Hughes, B. Nijssen, J. Cassano, and **M. Brunke**, 2015: Simulating transient ice-ocean Ekman transport in the Regional Arctic System Model and Community Earth System Model. *Ann. Glaciology*, **56**, 211-228, doi:10.3189/2015AoG9A760.
- Sakaguchi, K., X. Zeng, and **M. A. Brunke**, 2012: The hindcast skill of the CMIP ensembles for the surface air temperature trend. *J. Geophys. Res.*, **117**, D16113, doi:10.1029/2012JD017765.
- Sakaguchi, K., X. Zeng, and **M. A. Brunke**, 2012: Temporal- and spatial-scale dependence of three CMIP3 climate models in simulating the surface temperature trend in the twentieth century. *J. Climate*, **25**, 2456-2470.
- Scheftic, W., X. Zeng, P. Broxton, and **M. Brunke**, 2014: Intercomparison of seven NDVI products over the United States and Mexico. *Remote Sensing*, **6**, 1057-1084, doi:10.3390/rs6021057.
- Zeng, X., **M. Brunke**, M. Zhou, C. Fairall, N. A. Bond, and D. H. Lenschow, 2004: Marine atmospheric boundary layer height over the eastern Pacific: data analysis and model evaluation. *J. Climate*, **17**, 4159-4170.
- Zhou, M., X. Zeng, **M. Brunke**, Z. Zhang, and C. Fairall, 2006: An analysis of statistical characteristics of stratus and stratocumulus. *Geophys. Res. Lett.*, **33**, L02807, doi: 10.1029/2005GL024796.

SYNERGISTIC ACTIVITIES

Services: Member, American Meteorological Society, American Geophysical Union, and European Geophysical Union; Session Chair, 12th and 14th AMS Conferences on Interaction of Sea and Atmosphere; Participant, SEAFUX Project, VOCALS-Modeling Group, the Regional Arctic System Model team, and NASA CMAC 2011 tools review panel; Reviewer, *Atmospheric and Climate Sciences*, *Chinese Journal of Oceanology and Limnology*, *Environmental Research Letters*, *Journal of Applied Meteorology and Climatology*, *Journal*

of Applied Remote Sensing, Journal of Climate, Journal of Geophysical Research, Meteorology and Atmospheric Physics, Water Resources Research, and of NSF proposals; Member, UA College of Science Staff Advisory Council (2004-2010; Chair, 2005-2006, 2007-2010); Interview with K. Sakaguchi on spatial and temporal scales of global climate model skill, aired on KVOA on 21 September 2012; Public lecture, Green Valley Council Luncheon, 29 March 2014.

Awards: Recipient, 2004 UA College of Science Staff Excellence Award, 2011 UA College of Science Staff Excellence Award and Dean's Best of the Best Award; 2014 Galileo Circle Scholar.

COLLABORATORS AND OTHER AFFILIATIONS

Collaborators in the last 48 months: A. Craig (NCAR), J. Cassano (U. Colorado), A. DuVivier (U. Colorado), D. Gochis (NCAR), M. Hughes (U. Colorado/NOAA), D. Lawrence (NCAR), L. R. Leung (DOE/PNNL), W. Maslowski (NPS), B. Nijssen (U. Washington), G.-Y. Niu (U. Arizona), R. Osinski (Poland), J. Pelletier (U. Arizona), A. Roberts (NPS), S. T. Stegall (Cooperative Center for Climate and Satellites), and P. Troch (U. Arizona)

Graduate Advisors and Supervisors: Prof. Xubin Zeng, The University of Arizona (M.S. and Ph.D. Advisor and Supervisor)