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## ***EDUCATION***

Ph.D., Meteorology, The Pennsylvania State University, 1993

## ***PROFESSIONAL APPOINTMENTS***

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|---|---|
| 2000-present | Research Meteorologist, Earth System Research Laboratory, National Oceanic and Atmospheric Administration |
| 1997-1999 | Research Scientist II, CIRES, University of Colorado/National Oceanic and Atmospheric Administration |
| 1994-1997 | Faculty Research Associate, CIRES, University of Colorado/National Oceanic and Atmospheric Administration |
| 1993-1994 | Postdoctoral Fellow of the Advanced Study Program, National Center for Atmospheric Research |

## ***RESEARCH INTEREST AND EXPERIENCE***

Physics Parameterization in Numerical Weather Prediction Models, Atmospheric Boundary-Layer Modeling, Land-Surface Modeling, Air-Sea Coupled Modeling, Air-Sea Surface Flux Parameterization, Air-Quality Forecast/Modeling, Mesoscale Modeling, Mesoscale Ensemble Prediction, Mesoscale Data Assimilation

## ***PROFESSIONAL SERVICE***

2004-2006 Associate Editor of Weather Forecasting and Analysis

## ***SELECTED PEER REVIEWED PUBLICATIONS OVER THE PAST FEW YEARS***


Bleck, R., **J.-W. Bao**, S. G. Benjamin, and coauthors, 2015: A vertically flow-following, icosahedral-grid model for medium-range and seasonal prediction. Part 1: Model description. *Mon. Wea. Rev.*, doi: http://dx.doi.org/10.1175/MWR-D-14-00300.1.

Lynn, B. H., A. P. Khain, **J.-W. Bao**, and coauthors, 2015: The sensitivity of Hurricane Irene to aerosols and ocean coupling: simulations with WRF spectral bin microphysics. *J. of Atnos. Sci.*, doi: http://dx.doi.org/10.1175/JAS-D-14-0150.1.

**Bao, J.-W.,** S. G. Gopalakrishnan, S. A. Michelson, and coauthors, 2012: Impact of physics representations in the HWRFX model on simulated hurricane structure and wind-pressure relationships. *Mon. Wea. Rev.*, **140**, 3278–3299.

**Bao, J.-W.**, C. W. Fairall, S. A. Michelson, L. Bianco, 2011: Parameterizations of Sea-Spray Impact on the Air-Sea Momentum and Heat Fluxes. *Mon. Wea. Rev.*, **139**, 3781-3797.

Bianco, L., **J.-W. Bao**, C. W Fairall, and S .A. Michelson, 2011: Impact of sea spray on the surface boundary. *Boundar.-Layer Meteor.*, **140**, 361-381.

Rögnvaldsson, Ó., **J.-W. Bao**, H. Ágústsson, H., and H. Ólafsson, 2011: Downslope windstorm in Iceland – WRF/MM5 model comparison. *Atmos. Chem. Phys.*, **11**, 103-120, doi:10.5194/acp-11-103-2011.

Gopalakrishnan, S. G., F. Marks, X. Zhang, **J.-W. Bao**, K.-S. Yeh, and R.Atlas, 2011: The Experimental HWRF

System: A Study on the Influence of Horizontal Resolution on the Structure and Intensity Changes in Tropical Cyclones Using an Idealized Framework. *Mon. Wea. Rev.*, **139**, 1762–1784.

Michelson, S.A., I. V. Djalalova and **J.-W. Bao**, 2010: Comparisons of Observed and Simulated Atmospheric Boundary Layer Diurnal Cycle in California's Central Valley for the Summer of 2000. *J. of Appl. Meteor. Climate*. **49**, 2230-2245.

Chen, F., S. Miao, M. Tewari, **J.-W. Bao**, and H. Kusaka, 2011: A numerical study of interactions between surface forcing and sea breeze circulations and their effects on stagnation in the greater Houston area. *J. Geophys. Res.*, **116**, D12105, doi:10.1029/2010JD015533.

Jankov I., **J.-W. Bao**, P. J. Neiman, P. J. Schultz, H. Yuan, et al., 2009: Evaluation and Comparison of Microphysical Algorithms in WRF-ARW Model Simulations of Atmospheric River Events Affecting the California Coast. *J. of Hydrometeor*., **10**, 847-870.

**Bao, J.-W.**, S. A. Michelson, P. O. G. Persson, I. Djalalova, and J. M. Wilczak, 2008: Observed and simulated low-level winds in an episode case of the Central California Ozone Study. *J. of Appl. Meteor. Climate*, **47**, 2372–2394. Bao, J.-W., S. A. Michelson, P. O. G. Persson, I. Djalalova, and J. M. Wilczak, 2008: Observed and simulated low-level winds in an episode case of the Central California Ozone Study. *J. of Appl. Meteor. Climate*., **47**, 2372–2394.

Michelson, S. A., and **J.-W. Bao**, 2008: Sensitivity of the WRF Model Simulated Low-Level Winds in California's Central Valley to Uncertainties in the Large-Scale Forcing and Soil Initialization. *J. of Appl. Meteor, Climate*., **47**, 3131–3149