

Presentations (2010-2015)

Bao, J.-W., E. Grell, S.A. Michelson, and G. Grell, 2015-4-12: Microphysical Consistency between Grid-Resolved and Subgrid Cloud Parameterizations at Gray-Zone Resolution. *EGU General Assembly 2015*, Vienna, Austria.

Michelson, S.A., J.-W.Bao, and E. Grell, 2015-4-12: Budget Comparison of Parameterized Microphysical Processes in Tropical Cyclone Simulations. *EGU General Assembly 2015*, Vienna, Austria.

E. Grell, S.A. Michelson, and J.-W.Bao, 2015-4-12: Impact of Microphysical Consistency between Subgrid and Grid-Resolved Cloud Parameterizations on QPF and Simulated Radar Reflectivity. *EGU General Assembly 2015*, Vienna, Austria.

Bao, J.-W., E.Grell, and S. A. Michelson, 2014-5-2: A Study of Microphysical Parameterizations and Simulated Tropical Cyclone Development. *EGU General Assembly 2014*, Vienna, Austria

Bao, J.-W., E.Grell, and S. A. Michelson, 2014-11-23: Interaction of Subgrid and Grid-Resolved Cloud Parameterizations: An Outstanding Issue. *The Second Annual Meeting of the Scientific Steering Committee of the KLTC-NWP*, Shanghai, China.

Bao, J.-W., E.Grell, and S. A. Michelson, 2014-5-20: Impact of Parameterized Warm-Rain Microphysical Processes on Simulated Tropical Cyclone Development. Workshop on Numerical Prediction of Tropical Cyclones, Taipei, Taiwan.

Bao, J.-W., S. A. Michelson, E. D. Grell, and W. Haung, 2014-8-7: Moist Physics Evaluation: Observations and Diagnoses Are Both Needed Perspective. *Workshop on Strategic Use of Observations to Reduce Model Physics Errors*, Boulder, CO, USA.

Bao, J.-W., S. A. Michelson and E. D. Grell, 2014-9-24: Microphysics Parameterization Evaluation: An NWP Model Critic's Perspective. *AMOL/HWRF Seminar*, Miami, FL, USA.

Grell, E., S.A. Michelson, and J.-W. Bao, 2014-6-23: Impact of Parameterized Warm-Rain Microphysical Processes on Simulated Tropical Cyclone Development. *The 15th Annual WRF Users' Workshop*, Boulder, Colorado, USA.

Grell, E., S.A. Michelson, and J.-W. Bao, 2014-5-2: Impact of Parameterized Warm-Rain Microphysical Processes on Simulated Tropical Cyclone Development. *EGU General Assembly 2014*, Vienna, Austria.

Michelson, S.A. , E. Grell, W. Huang, B. Chen, and J.-W.Bao, 2014-6-23: Diagnosis of Differences in Hydrometeor Production between Multiple Parameterizations of Microphysics Using a Single-Column Model. *The 15th Annual WRF Users' Workshop*, Boulder, Colorado, USA.

Michelson, S.A. , E. Grell, W. Huang, B. Chen, and J.-W.Bao, 2014-5-2: Diagnosis of Differences in Hydrometeor Production between Multiple Parameterizations of Microphysics Using a Single-Column Model. *EGU General Assembly 2014*, Vienna, Austria.

Bao, J.-W, S. Michelson, and E. Grell, 2013-5-28: Impact of Complexity and Uncertainty in Cloud Microphysics Parameterizations on the Development of Tropical Cyclones. *Joint Taiwan-US Workshop on the HWRF Model*, Taipei, Taiwan.

Bao, J.-W, E. Grell, and S. Michelson, 2013-4-7: Toward Energetically Consistent Parameterization of Horizontal and Vertical Sub-Grid Mixing for High-Resolution NWP Models. *The EGU 2013 Annual Assembly*, Vienna, Austria.

Grell, E. D., S. A. Michelson, and J.-W. Bao, 2013-6-24: Sensitivity of the simulated structure of tropical cyclones to parameterized radiation-cloud interaction. *14th Annual WRF Workshop*, Boulder, CO, USA.

Grell, E., S. Michelson, and J.-W. Bao, 2013-4-7: Sensitivity of the Simulated Structure of Tropical Cyclones to Parameterized Radiation-Cloud Interaction. *The EGU 2013 Annual Assembly*, Vienna, Austria.

Michelson, S., E. D. Grell, and J.-W. Bao, 2013-6-24: Impact of complexity in cloud microphysics parameterizations on the development of tropical cyclones. *14th Annual WRF Workshop*, Boulder, CO, USA.

Michelson, S., E. Grell, and J.-W. Bao, 2013-4-7: Impact of Complexity in Cloud Microphysics Parameterizations on the Development of Tropical Cyclones. *The EGU 2013 Annual Assembly*, Vienna, Austria.

Bao, J.-W., S. Gopalakrishnan, S. Michelson, F. Marks, and M.T. Montgomery, 2012-4-15: Sensitivity of the NOAA Hurricane Research and Forecasting Model (HWRF) to Horizontal and Vertical Diffusion. *30th Conference on Hurricanes and Tropical Meteorology*, Ponte Verda Beach, FL, USA.

Bao, J.-W., S. Michelson and S. Gopalakrishnan, F. Marks, J. Zhang, V. Tallapragada, 2012-3-5: Comparison and Evaluation of Two ABL Mixing Schemes in HWRF. *The 66th Interdepartmental Hurricane Conference*, Charleston, SC, USA.

Bao, J.-W. and S. Michelson, 2012-7-9: Physics Representations in Tropical Cyclone Models. *Indo-US Advanced Workshop and Colloquium on Modeling and data Assimilation for Tropical Cyclone Prediction*, Bhubaneswar, Orissa, India.

Bao, J.-W., C. W. Fairall, S. A. Michelson, L. Bianco, 2012-7-9: Parameterizations of Sea-Spray Impact on the Air-Sea Momentum and Heat Fluxes. *Indo-US Advanced Workshop and Colloquium on Modeling and data Assimilation for Tropical Cyclone Prediction*, Bhubaneswar, Orissa, India.

Bao, J.-W., V. Tallapragada, S. Gopalakrishna, X. Zhang C. Fairall, S. Michelson, E. Grell, 2012-12-20: Improving Physics Representations in Tropical Cyclone Models: The Issues and Challenges. Shanghai Meteorological Bureau/Shanghai Typhoon Institute, Shanghai, China.

Michelson, S. and J.-W. Bao, 2012-6-26: Sensitivity of asymptotic behavior of idealized tropical cyclone intensification to parameterizations of the atmospheric boundary layer mixing. *The 13th WRF Users' Workshop*, Boulder, CO, USA.

Michelson, S., and J.-W. Bao, 2012-4-22: Comparison and evaluation of two types of PBL schemes in tropical cyclone boundary layer simulations. *The EGU 2012 Annual Assembly*, Vienna, Austria.

Bianco, L., S. Michelson, J.-W. Bao and C. W. Fairall, 2011-4-3: Effects of sea spray on the structure of tropical storm in a coupled atmosphere-wave-ocean model. *The EGU 2010 Annual Assembly*, Vienna, Austria.

Michelson, S. and J.-W. Bao, 2011-6-20: Sensitivity of asymptotic behavior of idealized tropical cyclone intensification to physics. *The 12th WRF Users' Workshop*, Boulder, CO, USA.

Bao, J.-W., S. Michelson and S. Gopalakrishnan, 2011-2-28: Controlling factors of the radius of maximum winds in HWRF. *The 65th Interdepartmental Hurricane Conference*, Miami, FL, USA

Michelson, S., and J.-W. Bao, 2011-4-3: Sensitivity of the simulated structure of tropical storms to physics parameterizations. *The EGU 2011 Annual Assembly*, Vienna, Austria.

Bao, J.-W., S. G. Gopalakrishnan, S. A. Michelson, 2010-5-10: Sensitivity of the NOAA Hurricane Research and Forecasting Model (HWRF) to Various Cloud and Boundary Layer Parameterizations. *29th Conference on Hurricanes and Tropical Meteorology*, Tucson, AR, USA.

Bao, J.-W., C. W. Fairall, S. A. Michelson, L. Bianco, 2010-5-6: Parameterization of Sea-Spray Impact on Air-Sea Momentum and Heat Fluxes in Hurricane Prediction Models. *The EGU 2010 General Assembly*, Vienna, Austria.

Bao, J.-W., S. Gopalakrishnan, and S. Michelson, 2010-3-1: Sensitivity of the WRF-NMM Model to Physics Parameterizations at Various Vertical and Horizontal Resolutions. *The 64th Interdepartmental Hurricane Conference*, Savannah, GA, USA.

Bianco, L., J.-W. Bao, C. W. Fairall, and S. A. Michelson, 2010-2-22: A Numerical Investigation of Feedback Processes in the Droplet Evaporation Layer for Tropical Cyclones. *2010 Ocean Sciences Meeting*, Portland, PA, USA.

Bao, J.-W., C. W. Fairall, L. Bianco, S. A. Michelson, I. Ginis, T. Hara, B. Thomas, 2010-12-13: Sea Spray Physics in the GFDL Coupled Atmosphere-Wave-Ocean Model for Hurricane Prediction. *2010 Fall Meeting*, AGU, San Francisco, CA, USA.

Bao, J.-W., S. A. Michelson, C. Fairall, and L. Bianco, 2010-9-27: Parameterization of Sea-Spray Impact on Air-Sea Momentum and Heat Fluxes in Weather and Climate Prediction Models. *17th Conference on Air Sea Interaction and Ninth Conference on Coastal Atmospheric and Oceanic Prediction and Processes*, Annapolis, MD, USA.

Bianco, L., J.-W. Bao, C. W. Fairall, and S. A. Michelson, 2010-5-10: Impact of sea spray on the surface boundary layer. *The AMS 29th Conference on Hurricanes and Tropical Meteorology*, Tucson, AR, USA.

Michelson, S.A. and J.-W. Bao, 2010-6-20: Sensitivity of an Idealized Hurricane Intensification to Physics Parameterizations: AHW vs HWRF. *Eleventh WRF Users' Workshop*, Boulder, CO, USA