

29th Conference on Hurricanes and Tropical Meteorology. May 10-14, 2010, Tucson, AZ.

Aberson, S. D., 2010: *Consequences, intended and unintended, of tropical cyclone surveillance globally during 2008.*

Aksoy, A., T. Vukicevic, J. S. Whitaker, S. G. Gopalakrishnan, and S. D. Aberson., 2010: *Vortex-scale hurricane data assimilation: Real-data results using combined NOAA/AOML/HRD HWRF-X regional and NOAA/ESRL GFS global ensemble Kalman filter systems.*

Ash, N., and J. J. Cione., 2010: *NOAA's utilization of Coyote unmanned aircraft systems for tropical cyclone research.*

Bao, S., L. Bernardet, V. Tallapragada, N. Surgi, Y. Kwon, Z. Zhan, L. Carson, D. Stark, S. Trahan, and W. Lapenta, 2010: *The community Hurricane Weather and Forecast (HWRF): system description and forecast skill.*

Bao, J.-W., S. G. Gopalakrishnan, S. A. Michelson: *Sensitivity of the NOAA hurricane research and forecasting model (HWRFX) to various cloud and boundary layer parameterizations.*

Bernardet, L., L. Nance, S. Bao, B. Brown, L. Carson, T. Fowler, J. Halley Gotway, C. Harrop, and J. Wolff, 2010: *The HFIP High-Resolution Forecast test: overview and results of track and intensity forecast verification.*

Bianco, L., J.-W. Bao, C. W. Fairall, and S. A. Michelson: *Impact of sea spray on the surface boundary layer.*

Billings, B.J., and J.D. Doyle, 2010: *The effects of complex terrain on tropical cyclone track, intensity, and rainfall during TCS-08.*

Billings, B.J., and J.D. Doyle, 2010: *Tropical cyclone flow structure in the presence of elevated terrain.*

Black, M. L. and Z. Gruskin., 2010: *The collapse of the eyewall of Hurricane Dolly (2008) into multiple mesovortices.*

Black, M. L., and C. Martin., 2010: *A unified GPS dropsonde quality assurance and visualization software system.*

Black, P. G., Y. Jin, S. Chen, J. D. Hawkins, D. S. Ko, J. D. Doyle, R. M. Hodur, T. R. Holt, H. Jin, C. S. Liou, K. D. Sashegyi, J. Schmidt, S. Want, Q. Zhao, M. S. Peng, I.-I. Lin, J. F. Gamache, and P. Niiler., 2010: *Observation and modeling comparison of Super-Typhoon Jangmi (2008) and Hurricane Katrina (2005).*

Brown, Barbara G., L. Nance, T. Jensen, and C. Williams, 2010: *The Tropical Cyclone Modeling Testbed (TCMT) and its role in the Hurricane Forecast Improvement Project (HFIP)*

Cione, J. J., J. Zhang, and E. W. Uhlhorn., 2010: *Near-surface temperature and moisture observations from tropical cyclones between 1975-2007: Axisymmetric and asymmetric structural analysis.*

Davis, C., W. Wang, J. Dudhia, R. Torn, S. Fredrick, R. Rotunno, C. Snyder, S. Cavallo, and J. M. Done: *Does enhanced horizontal resolution improve hurricane intensity forecasts?*

DeMaria, M., 2010: *Reviewers Abstract 29th Conference on Hurricanes and Tropical Meteorology Tropical Cyclone Intensity Change Predictability Estimates Using a Statistical-Dynamical Model.*

Doyle, J.D., S. Chen, J. Cummings, R. M. Hodur, E. Hendricks, T. Holt, H. Jin, Y. Jin, C. S. Liou, J. R. Moskaitis, M. Peng, K. D. Sashegyi, and J. Schmidt, 2010: *An overview of the COAMPS-TC system applied during HFIP and T-PARC*

Doyle, J.D., C. M. Amerault, C. A. Reynolds, and J. R. Moskaitis, 2010: *Initial condition sensitivity and predictability of tropical cyclogenesis.*

DeMaria, M., 2010: *Tropical cyclone intensity change predictability estimates using a statistical-dynamical model.*

Dunion, J., M. D. Eastin, D. S. Nolan, J. Hawkins, and C. Velden., 2010: *Arc clouds in the tropical cyclone environment: Implications for TC intensity change.*

Fan, Y., and I. Ginis, 2010: *Wind-wave-current interaction in hurricanes.*

Forde, E. B., M. L. Black, and J. Dunion., 2010: *The use of satellite-derived Total Precipitable Water (TPW) imagery for identifying Saharan Air Layers affecting tropical cyclones.*

Gall, J. S., I. Ginis, S. J. Lin, and T. Marchok, 2010: *Evaluation of the GFDL 25km resolution Global Atmospheric Model for tropical cyclone prediction.*

Gamache, J. F., A. Aksoy, S. Lorsolo, and S. Aberson., 2010: *Comparison of HRD Airborne-Doppler radar quality control and analysis to independent data sources.*

Ginis, I., B. Thomas, M. A. Bender, and T. Marchok, 2010. *Performance of the GFDL hurricane model during HFIP High-Resolution Hurricane Test Project.*

Ginis, I., Y. Fan, T. Hara, B. Thomas, J.-W. Bao, and L. Bianco, 2010: *Developing coupled wind-wave-current interaction framework with sea spray effects for hurricanes models.*

Goerss, G. S., C. A. Reynolds, J. G. McLay and E. Serra, 2010: *Tropical Cyclone Track Forecast Performance.*

Goerss, J. S., 2010: *Impact of new global models and ensemble prediction systems on consensus TC track forecasts.*

Green, B., F. Zhang 2010: *Dynamics and Structure of Supercells Induced by Hurricane Katrina (2005)".*

Gopalakrishnan, S. G., X. Zhang, T. Quirino, R. Rogers, K. Yeh, F. Marks, and R. Atlas., 2010: *The HWRFx modeling system: Recent developments in hurricane structure and intensity forecasting research in NOAA.*

Gruskin, Z., W. E Lewis, G. J. Tripoli, and T. Hashino., 2010: *The impact of adjusting physics in the University of Wisconsin nonhydrostatic modeling system (UW-HMS) on tropical cyclone evolution.*

Halliwell, G. R., S. G. Gopalakrishnan, X. Zhang and T. Quirino., 2010: *The HWRFx modeling system: Coupling to a one-dimensional ocean model with multiple vertical turbulence closures.*

Halverson, J., J. Wang, K. Young, B. Arensdorf, and M. Black., 2010: *Constructing a 13-year (1996-2008) high resolution GPS dropsonde database for hurricane research.*

Haydt, J., F. Masters, and R. A. Black., 2010: *Capture and characterization of near-surface wind-drive rain during Hurricane Ike (2008)*

Hendricks, E. A., M. S. Peng, B. Fu, and T. Li, 2010: *Quantifying environmental control on tropical cyclone intensity change.*

Hendricks, E. A., and M. S. Peng, 2010: *Is rapid intensification internally or externally controlled?*

Hinson, T. S., F. Zhang, Y. Weng, J. Wei, and R. F. Rogers., 2010: *Predictability and dynamics of a vertically-sheared tropical storm.*

Hinson, T.S., F. Zhang, Y. Weng, J. Wei, and R. F. Rogers, 2010: *Predictability and dynamics of a vertically-sheared tropical storm*
Real-time Cloud-resolving Ensemble Analysis and Forecast Assimilating Airborne Doppler Radar Observations during the 2008/2009 Atlantic Hurricane

Jin, H., M. S. Peng, Y. Jin, and J. D. Doyle, 2010: *COAMPS-TC forecasts for HFIP High Resolution Hurricane Tests*

Jin, Y., P. Black, E. Hendricks, R. Elsberry, S. Zick, J. Nachamkin, and B. Sampson, 2010: *Hurricane Hanna (2008) track deflection and rapid intensity change: An observational and numerical study.*

Jin, H., P. G. Black, J. D. Doyle, J. R. Moskaitis, R. M. Hodur, Y. Jin, and M. S. Peng, 2010. *Diagnosis and Verification of Real-Time COAMPS-TC Forecasts*

Jin, Y., L. Grasso, 2010: *Application of synthetic GOES imagery to the Hurricane Forecast Improvement Project.*

Kaplan, J., J. Zhang, S. Aberson, M. L. Black, E. Uhlhorn, J. Dunion, and A. Aksoy., 2010: *A multi-scale analysis of the rapid intensification of Hurricane Paloma (2008).*

Kaplan, J., J. J. Cione, M. DeMaria, J. A. Knaff, J. Dunion, J. F. Dostalek, J. E. Solbrig, J. Hawkins, T. F. Lee, J. Zhang, E. Kalina, and P. Leighton., 2010: *Enhancements to the operational SHIPS rapid intensification index.*

Klotz, B. W., and E. W. Uhlhorn., 2010: *Stepped Frequency Microwave Radiometer algorithm improvements addressing rain contamination of surface wind speed measurements in tropical cyclones.*

Knaff, J. A., M. M. DeMaria, J. Kaplan, and J. Dunion., 2010: *Assessing the impact of total precipitable water and lightning on SHIPS intensity forecasts*

Koch, S., L. Bernardet, S. Bao, N. Surgi, V. Tallapragada, Y. Kwon, Q. Liu, Z. Zhang, and L. Carson, 2010: *Developmental Testbed support of the Hurricane WRF for community use.*

Krishnamurti, T. N. and M. K. Biswas: *Hurricane forecasts during the 2009 season using a suite of mesoscale models*

Kwon, Y., S. Lord, W. Lapenta, V. Tallapragada, Q.Liu and Z. Zhang, 2010: *Sensitivity of air-sea exchange coefficients (Cd and Ch) on hurricane intensity.*

Liu, Q., H.-L. Pan and S. Lord, 2010: *Determination of the highest cloud top in SAS scheme and its impact on hurricane forecasts.*

Lorsolo, S., J. F. Gamache, F. Marks, and P. Dodge., 2010: *Retrieval of hurricane turbulence parameters using airborne Doppler radar measurements.*

Lynn, B., J.-W. Bao, I. Ginis, A. P. Khain, and S. G. Gopalakrishnan., 2010: *Development of a tropical cyclone microphysical model.*

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Marks, F. D., R. L. Gall, and F. Toepfer., 2010: *NOAA's Hurricane Forecast Improvement Project (HFIP): Project plan and status report.*

McNoldy, B., Mark DeMaria, Vijay Tallapragada, Timothy Marchok, 2010: *HWRF performance diagnostics from the 2009 Atlantic hurricane season*

Miller, T. L., M. W. James, R. Amarín, R. Atlas, M. C. Bailey, P. G. Black, C. D. Buckley, S. S. Chen, S. El-Nimri, R. E. Hood, J. W. Johnson, W. L. Jones, C. S. Ruf, D. E. Simmons, E. Uhlhorn, and C. M. English., 2010: *Development, capabilities, and impact on wind analyses of the Hurricane Imaging Radiometer (HIRAD).*

Murillo, S. T., B. Annane, and R. F. Rogers., 2010: *Evaluation of GFDL wind field structure during rapid intensification TC cases using H*Wind.*

Nance, L., L. Bernardet, S. Bao, B. Brown, T. Fowler, C. Harrop, E. Szoke, E. Tollerud, J. Wolff, and H. Yuan, 2010: *The HFIP High Resolution Hurricane Forecast Test: Beyond the traditional verification metrics.*

Nolan, D. S., J. A. Zhang, M. D. Powell, and F. J. Masters., 2010: *Evaluation of the surface wind field in a high-resolution simulation of the landfall of Hurricane Wilma (2005) by comparison to in situ wind measurements.*

O'Connor J., V. Tallapragada, H. Y. Chuang, W. M. Lapenta, and S. J. Lord, 2010: *Description of HWRF Modeling System graphics and statistics for use as a diagnostic tool.*

Peng, M. S., E. A. Hendricks, T. Li, and X. Ge, 2010: *Initialization of tropical cyclones in numerical prediction systems.*

Philp, T. J., and S. D. Aberson., 2010: *Analysis of five types of dropwindsonde dynamic and thermodynamic profiles in tropical cyclones.*

Piñeros, M. F., Elizabeth A. Ritchie, and J. Scott Tyo, 2010: *Detecting Tropical Cyclone Formation from Satellite infrared Imagery*

Poterjoy, J., F. Zhang, 2010: *Dynamics and structure of three-dimensional error covariance of a mature tropical cyclone.*

Powell, M., J. D. Kepert, and E. Uhlhorn., 2010: *Estimating maximum surface winds from hurricane reconnaissance measurements.*

Reynolds, C. A., J. G. McLay, J. Goerss, M. K. Flatau, J. A. Ridout, and E. Serra, 2010: *Impact of Formulation and Resolution on Ensemble Forecast Performance in the Tropics*.

Rogers, R. F., and S. Lorsolo., 2010: *Multiscale observations of tropical cyclone structure using airborne Doppler composites*.

Surgi, N., V. Tallapragada, Y. Kwon, Z. Zhang, Q. Liu, L. R. Bernardet, S. Bao, I. Ginis, G. J. Holland, C. Davis, and L. Carson, 2010: *Improving operational hurricane prediction with NCEP's Hurricane Weather and Research Forecast (HWRF) system: future advancements, community involvement and transition of research to operations through the Development Testbed Center (DTC)*.

Tallapragada, V., W. Lapenta, S.J. Lord, N. Surgi, Q. Liu, Y. Kwon, Z. Zhang, R. Tuleya and J. O'Connor, 2010: *Performance of the NCEP Operational HWRF Modeling System for 2008-2009 hurricane seasons*.

Tollerud, E., H. Yuan, L. Nance and L. Bernardet, 2010: *Using the HFIP High-Resolution Hurricane Test dataset to diagnose interconnected track and intensity errors in hurricane forecasts*.

Tong, M., J. C. Derber, Q. Liu, S. Lord, W. M. Lapenta, and J. F. Gamache., 2010: *Assimilation of airborne Doppler radar data for hurricane initialization and prediction in HWRF*.

Torn, R. D., S. Cavallo, C. Davis, C. Snyder: *Real-time mesoscale ensemble data assimilation for Atlantic TC*.

Trahan, S., V. Tallapragada, Z. Zhang, J. O'Connor, L. C. Sparling, and B. Lapenta, 2010: *A high resolution version of operational HWRF: forecast ability and computational challenges presented by an operational environment*. (Talk)

Trahan, S., and L. C. Sparling, V. Tallapragada, S. A. Braun, and J. Halverson, 2010: *A high resolution version of operational HWRF: forecast ability and computational challenges presented by an operational environment*. (Poster)

Tuleya, R. E. and Y.Wu, 2010: *Test results using the NOAH LSM in the operational HWRF system*.

Uhlhorn, E. W., R. A. Black, and B. W. Klotz., 2010: *Improved SFMR surface wind measurements in intense rain conditions*.

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Vukicevic, T., J. Dunion, A. Aksoy, F. D. Marks, S. G. Gopalakrishnan, S. D. Aberson, and M. van Lier-Walqui., 2010: *Improving regional high resolution hurricane forecasts through data assimilation and diagnostic verification with satellite observations.*

Wang, S., Y. Jin, P. Black, and J. Zhang, 2010: *Analysis of NRL COAMPS simulated boundary layer of Hurricane Isabel (2003).*

Weissmann, M., F. Harmisch, S. Rahm, T. Nakazawa, C. C. Wu, S. D. Aberson, Y. H. Kim, K. Yamashita, and Y. Ohta., 2010: *The influence of special T-PARC observations of typhoon track and mid-latitude forecasts.*

Weng, Y., F. Zhang, Y. H. Kuo, and J. S. Whitaker 2010: *Predicting Typhoon Morakot's Catastrophic Rainfall and Flooding With a Cloud-Scale Ensemble System Ensemble System.*

Williams, C., B. G. Brown, T. L. Jensen, and L. Nance, 2010: *Evaluation of experimental model forecasts from HFIP 2009 Demonstration.*

Wu, C.-C., P. H. Lin, K. H. Chou, S. D. Aberson, S. Majumdar, C. A. Reynolds, M. S. Peng, T. Nakazawa, P. A. Harr, H. M. Kim, M. Weissmann, J. H. Chen, and S. G. Chen., 2010: *Targeted observation and its impact in DOTSTAR and T-PARC.*

Yablonsky, R. M., I. Ginis, B. Thomas, J. J. Cione, S. G. Gopalakrishnan, G. R. Halliwell, R. Lumpkin, F. D. Marks, E. W. Uhlhorn, H. S. Kim, C. Lozano, V. Tallaparagada, E. P. Chassignet, H. R. Winterbottom, E. A. D'Asaro, P. P. Niiler, J. Morzel, and D. Kolber., 2010: *Collaborative effort to validate the ocean model component of coupled hurricane-ocean models.*

Yablonsky, R. M., and I. Ginis, 2010: *Numerical simulations of the hurricane intensity response to a warm ocean eddy.*

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Yeh, K.-S., X. Zhang, T. Quirino, V. Tallaparagada, S. G. Gopalakrishnan and R. Atlas, 2010: *Impacts of operational vortex initializations on 2009 hurricane forecast with the HWRFx model.*

Yu, Z., I. Ginis, and A. Khain, 2010: *Numerical modeling of boundary layer roll vortices in high wind conditions.*

Zhan Zhang, V. Tallapragada, Q. Liu, W. M. Lapenta, and S. J. Lord, 2010: *Hurricane Ensemble Prediction using NCEP operational HWRF system and GEFS perturbations.*

Zhang, F., Y. Weng, J. Gamache, and F. Marks., 2010: *Real-time clou-resolving ensemble analysis and forecast assimilating airborne Doppler radar observations during the 2008/2009 Atlantic hurricane seasons.*

Zhang, J., A. Aksoy, S. Lorsolo, J. J. Cione, R. Rogers, J. Kaplan, K. Yeh, X. Zhang, S. G. Gopalakrishnan, and F. Marks., 2010: *An observational and numerical study of the boundary layer processes during the intensification of Hurricane Bill (2009).*

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Zhao, Q.Y. Jin, 2010: *Radar-observed eyewall tilt and three-dimensional winds of Hurricane Isabel (2003).*

Zhu, P., J. Zhang, and F. Masters., 2010 *Wavelet analysis of turbulence in the hurricane boundary layer during landfalls.*

Zuczek, J. S., L. K. Shay, P. C. Meyers, E. W. Uhlhorn, R. Lumpkin, B. Jaimes, J. K. Brewster, and G. R. Halliwell., 2010: *Evolving boundary layer measurements during hurricanes Gustav and Ike.*