Curriculum Vitae

August 4, 2021

Kathryn Julie Sellwood
Senior Research Associate I, University of Miami, CIMAS and NOAA
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Education

A.A. Palm Beach Community College Math 2001 B.S. University of Miami Meteorology/Math 2003 M.S. University of Miami Meteorology/Physical Oceanography 2007

Employment History

2018-Present Senior Research Associate I, CIMAS
2009-2018 Research Associate III, CIMAS
2007-2009 Research Associate II, CIMAS
2004-2007 Research Assistant, University of Miami RSMAS
2006-2007 Teaching Assistant, Introduction to Weather Forecasting, University of Miami
25+ years Restaurant, Bar and Casino Management and service

Awards

2003 Outstanding Meteorology Student, University of Miami
2004 Rosenstiel Fellowship, University of Miami, RSMAS
2007 Dean's Prize for the Outstanding Master's Thesis
2011 NASA Group Achievement Award to Genesis and Rapid Intensification Processes
2015 NASA Group Achievement Award to Hurricane Severe Storm Sentinel 2017 NASA Group Achievement Award to Sensing Hazards with Unmanned Operational Technology
2020 NOAA team award for search and rescue efforts, following the sinking of Bourbon Rhode marine vessel

Professional and Educational Affiliations

1999 - present Phi Theta Kappa Honor Society
2001 - present Palm Beach County Skywarn
2002 - present Golden Key Honor Society
2006 - present New York Academy of Science
2007 - present American Meteorological Society

Publications

Zawislak, J., R.F. Rogers, S.D. Aberson, G.J. Alaka, G. Alvey, A. Aksoy, L. Bucci, J. Cione, N.

Dorst, J. Dunion, M. Fischer, J. Gamache, S. Gopalakrishnan, A. Hazelton, H.M. Holbach, J. Kaplan, H. Leighton, F. Marks, S.T. Murillo, P. Reasor, K. Ryan, K. Sellwood, J.A. Sippel, and J.A. Zhang. Accomplishments of NOAA'S airborne hurricane field program and a broader future approach to forecast improvement. Bulletin of the American Meteorological Society, https://doi.org/10.1175/BAMS-D-20-0174.1 2021

Wick, G.A., J.P. Dunion, P.G. Black, J.R. Walker, R.D. Torn, A.C. Kren, A. Aksoy, H. Christophersen, L. Cucurull, B. Dahl, J.M. English, K. Friedman, T.R. Peevey, K. Sellwood, J.A. Sippel, V. Tallapragada, J. Taylor, H. Wang, R.E. Hood, and P. Hall. NOAA's Sensing Hazards with Operational Unmanned Technology (SHOUT) Experiment: Observations and forecast impacts. Bulletin of the American Meteorological Society, https://doi.org/10.1175/BAMS-D-18-0257.1 2020

Aberson, S.D., K.J. Sellwood, and P.A. Leighton. Calculating dropwindsonde location and time from TEMP-DROP messages for accurate assimilation and analysis. Journal of Atmospheric and Oceanic Technology, 34(8):1673-1678, https://doi.org/10.1175/JTECH-D-17-0023.1 2017

Christophersen, H., A. Aksoy, P. Dunion, and K. Sellwood. The impact of NASA Global Hawk unmanned aircraft dropwindsonde observations on tropical cyclone track, intensity and structure: Case studies. Monthly Weather Review, 145(5):1817-1830, https://doi.org/10.1175/MWR-D-16-0332.1 2017

Aberson, S.D., A. Aksoy, K.J. Sellwood, T. Vukicevic, and X. Zhang. Assimilation of high- resolution tropical cyclone observations with an ensemble Kalman filter using HEDAS: Evaluation of 2008-2011 HWRF forecasts. Monthly Weather Review, 143(2):511- 523, https://doi.org/10.1175/MWR-D-14-00138.1 2015

Aksoy, A., S.D. Aberson, T. Vukicevic, K.J. Sellwood, S. Lorsolo, and X. Zhang., 2013: Assimilation of high-resolution tropical cyclone observations with an ensemble Kalman filter using NOAA/AOML/HRD's HEDAS: Evaluation of the 2008-2011 vortex-scale analyses. Mon. Wea. Rev., 141, 1842-1865

Rogers, R.F., S.D. Aberson, A. Aksoy, B. Annane, M. Black, J.J. Cione, N. Dorst, J. Dunion, J.F. Gamache, S.B. Goldenberg, S.G. Gopalakrishnan, J. Kaplan, B.W. Klotz, S. Lorsolo, F.D. Marks, S.T. Murillo, M.D. Powell, P.D. Reasor, K.J. Sellwood, E.W. Uhlhorn, T. Vukicevic, J.A. Zhang, And X. Zhang., 2013: NOAA's Hurricane Intensity Forecasting Experiment (IFEX): A progress report. Bull. Amer. Meteor. Soc., 94, 859-882

Vukicevic, T., A. Aksoy, P. Reasor, S. Aberson, K. Sellwood, and F. Marks. 2013: Joint impact of forecast tendency and state error biases in Ensemble Kalman Filter data assimilation of inner-core tropical cyclone observations. Mon. Wea. Rev., 141, 2992-3006

Aksoy, A., S. Lorsolo, T. Vukicevic, K.J. Sellwood, S.D. Aberson, and F. Zhang. 2012: The HWRF Hurricane Ensemble Data Assimilation System (HEDAS) for high-resolution data: The impact of airborne Doppler radar observations in an OSSE. Mon. Wea. Rev., 140,1843-1862

Majumdar, S. J. and K. J. Sellwood. 2012: Characteristics of target areas selected by the ensemble transform Kalman filter for medium-range forecasts of high-impact weather. Mon. Wea. Rev.,134, 2354-2372

Sellwood, K.J., Majumdar, S.J., Mapes, B.E. and Szunyogh, I. 2008: Predicting the influence of observations on medium-range forecasts of atmospheric flow. *Quart. J. Roy. Meteor. Soc*, **134**, 2011-2027

Recent Presentations

Sellwood, K.J., Helms C.N., Dahl, B., Aksoy, A., Curcurell, L. and Wick, G..2021: Assimilation of Global Hawk UAS HIWRAP Radar Horizontal Wind Profiles Collected During the 2016 SHOUT Field Campaign. Presented at the 34th Conference on Hurricanes and Tropical Meteorology, Remote. Program number 8A.3

Sellwood, K.J., Sippel, J.A. and Aksoy, A.. 2020: Optimizing Dropwindsonde Levels for Data Assimilation. Presented at the 100th American Meteorological Society Annual Meeting, Boston MA. Program numbet 5.6

Sellwood, K.J., Aberson, S. 2021: Dropsondes in HRD Research (2020). Presented at the AVAPS User Group Meeting. Remote.