

# **David J. Stensrud**

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## Employment History

- 7/1/2023- Professor, Department of Meteorology and Atmospheric Science, The Pennsylvania State University, University Park, Pennsylvania
- 6/1/2014-2023 Head and Professor, Department of Meteorology and Atmospheric Science, The Pennsylvania State University, University Park, Pennsylvania
- 9/2012-5/2014 Research Meteorologist  
National Severe Storms Laboratory (NSSL), National Oceanic and Atmospheric Administration (NOAA), Norman, Oklahoma.  
\* Senior Scientist, NOAA Warn-on-Forecast Program
- 1/2008-8/2012 Chief, Forecast Research and Development Division  
National Severe Storms Laboratory, National Oceanic and Atmospheric Administration, Norman, Oklahoma.  
\* Inaugural Manager, NOAA Warn-on-Forecast Program
- 1986-2007 Research Meteorologist  
National Severe Storms Laboratory, National Oceanic and Atmospheric Administration, Norman, Oklahoma.  
\* Leader, Model and Assimilation Team, 1995-2007

## Education

- Ph.D. 1992 The Pennsylvania State University, University Park (Meteorology)  
M.S. 1985 The Pennsylvania State University, University Park (Meteorology)  
B.A. 1983 University of Wisconsin-Madison (Meteorology, Mathematics)

## Honors and Awards

- Chi Epsilon Pi, Meteorology Honorary Society  
Sigma Xi, The Scientific Research Society  
NOAA long-term training at The Pennsylvania State University 1989  
NOAA Sustained Superior Performance Award 1991, 1992, 1993, 1994  
Gold Medal Award (Unit Citation presented to NSSL), U.S. Dept. of Commerce, 1995  
White House Presidential Early Career Award for Scientists and Engineers, 1996  
Clarence Leroy Meisinger Award, American Meteorological Society, 1998  
Office of Oceanic and Atmospheric Research Outstanding Scientific Paper Award, 1999, 2000, 2002  
NSSL Outstanding Scientific Paper Award, 2005  
Recognized by NOAA for contributions to IPCC reports awarded the Nobel Prize, 2007  
Office of Oceanic and Atmospheric Research Outstanding Scientific Paper Award, 2008  
Fellow, American Meteorological Society, 2009  
Federal Associate, Cooperative Institute for Mesoscale Meteorological Studies, 2013  
NOAA Distinguished Career Award, 2015  
Charles Franklin Brooks Award, American Meteorological Society, 2019

### Service Activities (Committee and Advisory Panel Memberships, Editorships, Lectureships)

Chair, NSSL Computing and Data Management Users Group, 1991-1993  
Chair, NSSL In-Situ Observing System Committee, 1992  
Mentor, EARTHSTORM program, 1992-2002  
Member, Science Team, Atmospheric Radiation Measurement Program, 1992-1996  
Member, Cooperative Institute for Mesoscale Meteorological Studies Council, 1993-2014  
Fellow, Cooperative Institute for Mesoscale Meteorological Studies, 1994-2014  
Associate Editor, *Monthly Weather Review*, 1994-1998  
Associate Editor, *Weather and Forecasting*, 1994-1998  
NSSL Modeling Group Committee, 1995-1998  
Member, Mesoscale Processes Committee, American Meteorological Society, 1997-2000  
Member, USWRP Review Panel for the National Science Foundation, 1997  
Editor, *Weather and Forecasting*, 1999-2003  
Member, Oklahoma Mesonet Steering Committee, 2000-2014  
Member, Weather Research and Forecasting (WRF) model Science Oversight Board, 2000-2003  
Member, North American Monsoon Experiment (NAME) Science Working Group, 2000-2004  
Leader, WRF Ensemble Forecasting Working Group, 2000-2012  
Member, NWS Science Technology Infusion Program Team for Numerical Weather Prediction and Data Assimilation, 2002  
Co-chair, Symposium on “Observing and Understanding the Variability of Water in Weather and Climate”, American Meteorological Society, 2003  
Co-Chief Editor, *Weather and Forecasting*, 2004-2006  
Liaison, Office of Oceanic and Atmospheric Research to WRF Model Program Office, 2004-2008  
Co-chair, Workshop on the New England High-Resolution Temperature Program, Sturbridge, MA, 2004  
Member, WRF Research Advisory Board (RAB), 2004-2012  
Member, Transition Team, College of Geosciences, University of Oklahoma, 2005  
Member, Program Committee, First US - China Symposium on Meteorology, 2006-2008  
Chair, Mesoscale Processes Committee, American Meteorological Society, 2006-2008  
Co-chair, Symposium on “Connections between Mesoscale Processes and Climate Variability”, American Meteorological Society, 2007  
Invited Lecturer, Summer School on Mesoscale Meteorology and Predictability, Hyytiälä, Finland, 2007.  
Invited Lecturer, Parameterization Schemes, Institute for Atmospheric Physics, Chinese Academy of Sciences, Beijing, People’s Republic of China, 2009  
Member, Advisory Council, Vice President for Research, University of Oklahoma, 2009-2011  
Member, Science Advisory Board, Developmental Testbed Center (DTC), 2010-2012  
Member, National Weather Service Roadmap Team, Numerical Guidance, 2011  
Chair, Storm-scale Radar Data Assimilation Workshop, Norman, Oklahoma, October 2011  
Program Chair, NOAA Warn-on-Forecast and High-Impact Weather Workshop, 2010-2012  
Member, Weather Societal Benefit Area Working Group, National Earth Observations Task Force, Office of Science and Technology Policy, White House, 2012  
Member, Disasters Societal Benefit Area Working Group, National Earth Observations Task Force, Office of Science and Technology Policy, White House, 2012  
Member, NOAA/NWS Functional Weather Radar Requirements Integrated Working Team, 2012-2013  
Guest Editor, *Advances in Meteorology*, Special Issue on “Storm-scale data assimilation and NWP”, 2013  
Member, Science Advisory Board, NOAA Warn-on-Forecast Program, 2014-2017  
Future STAC Commissioner, American Meteorological Society, 2014  
Penn State Representative to UCAR, 2014-present  
STAC Commissioner, 2015-2016  
Member, NCAR Mesoscale and Microscale Meteorology Division Advisory Board, 2015-present  
Co-Chair, Convection Allowing Models Working Group, Strategic Implementation Planning, National Weather Service, 2016-2018  
Past STAC Commissioner, 2017-2018  
Member, AMS Meetings Oversight Committee, 2017-2019  
Member, Finance Committee, American Meteorological Society, 2018-2021  
Member, Advisory Committee, Center for Analysis and Prediction of Storms, University of Oklahoma, 2018

Co-Chair, Pennsylvania Environmental Monitoring Network Steering Committee, 2019-  
Member, Executive Board, Cooperative Institute for Severe and High-Impact Weather Research and Operations,  
2022-

#### Scientific Society Memberships

American Meteorological Society  
American Geophysical Union  
American Association for the Advancement of Science  
Sigma Xi, The Scientific Research Society

#### Publication Metrics

An h-index of 56, i10 index of 143 from Google Scholar, with over 10,500 citations

#### Formal Publications - Lead Authored

1. Stensrud, D.J., and H.N. Shirer, 1988: Development of boundary layer rolls from dynamic instabilities. *J. Atmos. Sci.*, **45**, 1007-1019.
2. Stensrud, D.J., and R.A. Maddox, 1988: Opposing mesoscale circulations: A case study. *Wea. Forecasting*, **3**, 189-204.
3. Stensrud, D.J., M.H. Jain, K.W. Howard, and R.A. Maddox, 1990: Operational systems for observing the lower atmosphere: Importance of data sampling and archival procedures. *J. Atmos. Oceanic Tech.*, **7**, 930-937.
4. Stensrud, D.J., R.A. Maddox, and C.L. Ziegler, 1991: A sublimation-initiated mesoscale downdraft and its relation to the wind field below a precipitating anvil cloud. *Mon. Wea. Rev.*, **119**, 2124-2139.
5. Stensrud, D.J., and J.-W. Bao, 1992: Behaviors of variational and nudging assimilation techniques with a chaotic low-order model. *Mon. Wea. Rev.*, **120**, 3016-3028.
6. Stensrud, D.J., 1993: Elevated residual layers and their influence on boundary layer evolution. *J. Atmos. Sci.*, **50**, 2284-2293.
7. Stensrud, D.J., and J.M. Fritsch, 1993: Mesoscale convective systems in weakly forced large-scale environments. Part I: Observations. *Mon. Wea. Rev.*, **121**, 3326-3344.
8. Stensrud, D.J., and J.M. Fritsch, 1994: Mesoscale convective systems in weakly forced large-scale environments. Part II: Generation of a mesoscale initial condition. *Mon. Wea. Rev.*, **122**, 2068-2083.
9. Stensrud, D.J., and J.M. Fritsch, 1994: Mesoscale convective systems in weakly forced large-scale environments. Part III: Numerical simulations and implications for operational forecasting. *Mon. Wea. Rev.*, **122**, 2084-2104.
10. Stensrud, D.J., R.L. Gall, S.L. Mullen, and K.W. Howard, 1995: Model climatology of the Mexican monsoon. *J. Climate*, **8**, 1775-1794.
11. Stensrud, D.J., and J.A. Skindlov, 1996: Grid point predictions of high temperature from a mesoscale model. *Wea. Forecasting*, **11**, 103-110.
12. Stensrud, D.J., 1996: Importance of low-level jets to climate: A review. *J. Climate*, **9**, 1698-1711.
13. Stensrud, D.J., 1996: Effects of a persistent, midlatitude mesoscale region of convection on the large-scale environment during the warm season. *J. Atmos. Sci.*, **53**, 3503-3527.
14. Stensrud, D.J., R.L. Gall, and M. Nordquist, 1997: Surges over the Gulf of California during the Mexican monsoon. *Mon. Wea. Rev.*, **125**, 417-437.

15. Stensrud, D.J., J.V. Cortinas, Jr., and H.E. Brooks, 1997: Discriminating between tornadic and non-tornadic thunderstorms using mesoscale model output. *Wea. Forecasting*, **12**, 613-632.
16. Stensrud, D.J., H.E. Brooks, J. Du, M.S. Tracton, and E. Rogers, 1999: Using ensembles for short-range forecasting. *Mon. Wea. Rev.*, **127**, 433-446.
17. Stensrud, D.J., G. Manikin, E. Rogers, and K. Mitchell, 1999: Importance of cold pools to mesoscale model forecasts. *Wea. Forecasting*, **14**, 650-670.
18. Stensrud, D.J., J.-W. Bao, and T.T. Warner, 2000: Using initial condition and model physics perturbations in short-range ensembles of mesoscale convective systems. *Mon. Wea. Rev.*, **128**, 2077-2107.
19. Stensrud, D. J., H. E. Brooks, J. Du, M. S. Tracton, and E. Rogers, 2000: Reply to comments on "Using ensembles for short-range forecasting". *Mon. Wea. Rev.*, **128**, 3021-3023.
20. Stensrud, D.J., and M.S. Wandishin, 2000: Correspondence ratio in forecast evaluation. *Wea. Forecasting*, **15**, 593-602.
21. Stensrud, D.J., 2001: Using short-range ensemble forecasts for predicting severe weather events. *Atmos. Research*, **56**, 3-17.
22. Stensrud, D.J., and J.L. Anderson, 2001: Is midlatitude convection an active or a passive player in producing global circulation patterns? *J. Climate*, **14**, 2222-2237.
23. Stensrud, D.J., and S.J. Weiss, 2002: Mesoscale model ensemble forecasts of the 3 May 1999 tornado outbreak. *Wea. Forecasting*, **17**, 526-543.
24. Stensrud, D.J., and N. Yussouf, 2003: Short-range ensemble predictions of 2-m temperature and dewpoint temperature over New England. *Mon. Wea. Rev.*, **131**, 2510-2524.
25. Stensrud, D.J., H.E. Brooks, S.S. Chen, and P.J. Roebber, 2004: Editorial, *Wea. Forecasting*, **19**, 3-4.
26. Stensrud, D.J., M.C. Coniglio, R.P. Davies-Jones, and J.S. Evans, 2005: Comments on “A Theory for Strong Long-Lived Squall Lines” Revisited. *J. Atmos. Sci.*, **62**, 2989-2996.
27. Stensrud, D.J., and N. Yussouf, 2005: Bias-corrected short-range ensemble forecasts of near surface variables. *Meteor. Appl.*, **12**, 217-230.
28. Stensrud, D. J., and H. E. Brooks, 2005: The future of peer review? *Wea. Forecasting*, **20**, 825-826.
29. Stensrud, D. J., 2006: NEH RTP Workshop: Improving weather forecast services used by the electric utility industry. *Bull. Amer. Meteor. Soc.*, **87**, 499-501.
30. Stensrud, D.J., N. Yussouf, M. E. Baldwin, J. T. McQueen, J. Du, B. Zhou, B. Ferrier, G. Manikin, F. M. Ralph, J. M. Wilczak, A. B. White, I. Djilalova, J.-W. Bao, R. J. Zamora, S. B. Benjamin, P. A. Miller, T. L. Smith, T. Smirnova, and M. F. Barth, 2006: The New England High-Resolution Temperature Program (NEH RTP). *Bull. Amer. Meteor. Soc.*, **87**, 491-498.
31. Stensrud, D. J., and N. Yussouf, 2007: Reliable probabilistic quantitative precipitation forecasts from a short-range ensemble forecasting system. *Wea. Forecasting*, **22**, 3-17.
32. Stensrud, D. J., N. Yussouf, D. C. Dowell, and M. C. Coniglio, 2009: Assimilating surface data into a mesoscale model ensemble: Cold pool analyses from spring 2007. *Atmos. Res.*, **93**, 207-220.

33. Stensrud, D. J., M. Xue, L. J. Wicker, K. E. Kelleher, M. P. Foster, J. T. Schaefer, R. S. Schneider, S. G. Benjamin, S. S. Weygandt, J. T. Ferree, and J. P. Tuell, 2009: Convective-scale warn on forecast: A vision for 2020. *Bull. Amer. Meteor. Soc.*, **90**, 1487-1499.
34. Stensrud, D. J., and J. Gao, 2010: Importance of horizontally inhomogeneous environmental initial conditions to ensemble storm-scale radar data assimilation and very short range forecasts. *Mon. Wea. Rev.*, **138**, 1250-1272.
35. Stensrud, D. J., L. J. Wicker, M. Xue, D. T. Dawson II, N. Yussouf, D. M. Wheatley, T. E. Thompson, N. A. Snook, T. M. Smith, A. D. Schenkman, C. K. Potvin, E. R. Mansell, T. Lei, K. M. Kuhlman, Y. Jung, T. A. Jones, J. Gao, M. C. Coniglio, H. E. Brooks, and K. A. Brewster, 2013: Progress and challenges with Warn-on-Forecast. *Atmos. Research*, **123**, 2-16.
36. Stensrud, D. J., 2013: Upscale effects of deep convection during the North American monsoon. *J. Atmos. Sci.*, **70**, 2681-2695.
37. Stensrud, D. J., G. S. Young, and M. R. Kumjian, 2022: Wide horizontal convective rolls over land. *Mon. Wea. Rev.*, **150**, 2999-3010. <https://doi.org/10.1175/MWR-D-22-0014.1>

#### Formal Publications – Co-Authored

1. Rabin, R.M., S. Stadler, P.J. Wetzel, D.J. Stensrud, and M. Gregory, 1990: Observed effects of landscape variability on convective clouds. *Bull. Amer. Meteor. Soc.*, **71**, 272-280.
2. Zheng, Y., Q. Xu, and D.J. Stensrud, 1995: A numerical study of the 7 May 1985 mesoscale convective system. *Mon. Wea. Rev.*, **123**, 1781-1799.
3. Brooks, H.E., M.S. Tracton, D.J. Stensrud, G. DiMego, and Z. Toth, 1995: Short-range ensemble forecasting: Report from a workshop (25-27 July 1994). *Bull. Amer. Meteor. Soc.*, **76**, 1617-1624.
4. Cortinas, J. V., Jr., and D. J. Stensrud, 1995: The importance of understanding mesoscale model parameterization schemes for weather forecasting. *Wea. Forecasting*, **10**, 716-740.
5. Douglas, M.W., and D.J. Stensrud, 1996: Upgrading the North American upper-air observing system: What are the possibilities? *Bull. Amer. Meteor. Soc.*, **77**, 907-924.
6. Romero, R., C. Ramis, S. Alonso, C.A. Doswell III, and D.J. Stensrud, 1998: On the application of a mesoscale numerical simulation model to three heavy rain episodes. *Mon. Wea. Rev.*, **126**, 1859-1881.
7. Markowski, P.M., and D.J. Stensrud, 1998: Mean monthly diurnal cycles observed with PRE-STORM surface data. *J. Climate*, **11**, 2995-3009.
8. Spencer, P.L., and D.J. Stensrud, 1998: Simulating flash flood events: Importance of the sub-grid representation of convection. *Mon. Wea. Rev.*, **126**, 2884-2912.
9. Pereira, A.J.F., K.C. Crawford, and D.J. Stensrud, 1999: Mesoscale precipitation fields. Part II: Hydrometeorologic modeling. *J. Appl. Meteor.*, **38**, 102-125.
10. Brooks, H.E., and D.J. Stensrud, 2000: Climatology of heavy rain events in the United States from hourly precipitation observations. *Mon. Wea. Rev.*, **128**, 1194-1201.
11. Fuller, R.D., and D.J. Stensrud, 2000: The relationship between easterly waves and surges over the Gulf of California during the North American monsoon. *Mon. Wea. Rev.*, **128**, 2983-2989.
12. Crawford, T.M., D.J. Stensrud, T.N. Carlson, and W.J. Capehart, 2000: Using the soil hydrology model to initialize soil moisture. *J. Hydrometeor.*, **1**, 353-363.

13. Xu, M., T.T. Warner, J.-W. Bao, and D.J. Stensrud, 2001: Effect of time-step size in MM5 simulations of a mesoscale convective system. *Mon. Wea. Rev.*, **129**, 502-516.
14. Maddox, R.A., D.J. Stensrud, and G.P. Byrd, 2001: Editorial. *Wea. Forecasting*, **16**, 5-6.
15. Wandishin, M.S., S.L. Mullen, D.J. Stensrud, and H.E. Brooks, 2001: Evaluation of a short-range multi-model ensemble system. *Mon. Wea. Rev.*, **129**, 729-747.
16. Xu, M., D.J. Stensrud, J.-W. Bao, and T.T. Warner, 2001: Applications of the adjoint technique to short-range ensemble forecasting of mesoscale convective systems. *Mon. Wea. Rev.*, **129**, 1395-1418.
17. Coniglio, M.C., and D.J. Stensrud, 2001: Simulation of a progressive derecho using composite initial conditions. *Mon. Wea. Rev.*, **129**, 1593-1616.
18. Crawford, T.M., D.J. Stensrud, F. Mora, J.W. Merchant, and P.J. Wetzel, 2001: Value of incorporating satellite-derived land cover data in MM5/PLACE for simulating surface temperatures. *J. Hydrometeor.*, **2**, 453-468.
19. Errico, R.M., D.J. Stensrud, and K. Raeder, 2001: Estimation of the error distributions of precipitation produced by convective parameterization schemes. *Quart. J. Royal Meteor. Soc.*, **127**, 2495-2512.
20. Alhamed, A., S. Lakshmivarahan, and D.J. Stensrud, 2002: Cluster analysis of multi-model ensemble data from SAMEX. *Mon. Wea. Rev.*, **130**, 226-256.
21. Elmore, K.L., D.J. Stensrud, and K.C. Crawford, 2002: Ensemble cloud model applications to thunderstorm forecasting. *J. Appl. Meteor.*, **41**, 363-383.
22. Elmore, K.L., D.J. Stensrud, and K.C. Crawford, 2002: Cloud scale model forecasts: Extreme sensitivity to environmental conditions. *Wea. Forecasting*, **17**, 873-884.
23. Higgins, R.W., A. Douglas, A. Hahmann, E.H. Berbery, D. Gutzler, J. Shuttleworth, D. Stensrud, J. Amador, R. Carbone, M. Cortez, M. Douglas, R. Lobato, J. Meitin, C. Ropelewski, J. Schemm, S. Schubert, and C. Zhang, 2003: Progress in Pan American CLIVAR research: The North American monsoon system. *Atmosphera*, **16**, 29-65.
24. Homar, V., R. Romero, D.J. Stensrud, C. Ramis, and S. Alonso, 2003: Numerical diagnosis of a small, quasi-tropical cyclone over the western Mediterranean: Dynamical vs. boundary factors. *Quart. J. Roy. Meteor. Soc.*, **129**, 1469-1490.
25. Kurkowski, N.P., D.J. Stensrud, and M.E. Baldwin, 2003: Assessment of implementing satellite-derived land cover data in the Eta model. *Wea. Forecasting*, **18**, 404-416.
26. Marshall, C.H. Jr., K.C. Crawford, K.E. Mitchell, and D.J. Stensrud, 2003: The impact of the land surface physics in the operational NCEP Eta Model on simulating the diurnal cycle: Evaluation and testing using Oklahoma Mesonet data. *Wea. Forecasting*, **18**, 748-768.
27. Spencer, P.L., D.J. Stensrud, and J.M. Fritsch, 2003: A method for improved analyses of scalars and their derivatives. *Mon. Wea. Rev.*, **131**, 2555-2576.
28. McPherson, R.A., D.J. Stensrud, and K.C. Crawford, 2004: The impact of Oklahoma's winter wheat belt on the mesoscale environment. *Mon. Wea. Rev.*, **132**, 405-421.
29. Coniglio, M.C., D.J. Stensrud, and M.B. Richman, 2004: An observational study of derecho-producing convective systems. *Wea. Forecasting*, **19**, 320-327.
30. Schultz, D.M., D.S. Arndt, D.J. Stensrud, and J.W. Hanna, 2004: Banded snow showers during the cold-air outbreak of 23 January 2003. *Mon. Wea. Rev.*, **132**, 827-842.

31. Coniglio, M.C., and D.J. Stensrud, 2004: On the climatology of derechos. *Wea. Forecasting*, **19**, 595-605.
32. Nutter, P., D. Stensrud, and M. Xue, 2004: Effects of coarsely-resolved and temporally-interpolated lateral boundary conditions on the dispersion of limited-area ensemble forecasts. *Mon. Wea. Rev.*, **132**, 2358-2377.
33. Nutter, P., M. Xue, and D. Stensrud, 2004: Application of lateral boundary condition perturbations to help restore dispersion in limited-area forecasts. *Mon. Wea. Rev.*, **132**, 2378-2390.
34. Yussouf, N., D.J. Stensrud, and S. Lakshminarayanan, 2004: Cluster analysis of multimodel ensemble data over New England. *Mon. Wea. Rev.*, **132**, 2452-2462.
35. Homar, V., and D.J. Stensrud, 2004: Sensitivities of an intense cyclone over the western Mediterranean. *Q. J. Roy. Meteor. Soc.*, **130**, 2519-2540.
36. Roebber, P. J., D.M. Schultz, B.A. Colle, and D.J. Stensrud, 2004: Toward improved prediction: High-resolution and ensemble modeling systems in operations. *Wea. Forecasting*, **19**, 936-949.
37. Segele, Z.T., D.J. Stensrud, I.C. Ratcliffe, and G.M. Henebry, 2005: Influence of a hailstreak on boundary layer evolution. *Mon. Wea. Rev.*, **133**, 942-960.
38. McPherson, R.A., and D.J. Stensrud, 2005: Influences of a winter wheat belt on the evolution of the boundary layer. *Mon. Wea. Rev.*, **133**, 2178-2199.
39. Coniglio, M. C., D. J. Stensrud, and L. J. Wicker, 2006: Effects of upper-level shear on the structure and maintenance of strong quasi-linear mesoscale convective systems. *J. Atmos. Sci.*, **63**, 1231-1252.
40. Homar, V., D. J. Stensrud, J. J. Levit, and D. R. Bright, 2006: Value of human-generated perturbations in short-range ensemble forecasts of severe weather. *Wea. Forecasting*, **21**, 347-363.
41. Yussouf, N., and D. J. Stensrud, 2006: Prediction of near surface variables at independent locations from a bias-corrected ensemble forecasting system. *Mon. Wea. Rev.*, **134**, 3415-3424.
42. Fujita, T., D. J. Stensrud, and D. C. Dowell, 2007: Surface data assimilation using an ensemble Kalman filter approach with initial condition and model physics uncertainty. *Mon. Wea. Rev.*, **135**, 1846-1868.
43. Adams, J. L., and D. J. Stensrud, 2007: Impact of tropical easterly waves on the North American monsoon. *J. Climate*, **20**, 1219-1238.
44. Yussouf, N., and D. J. Stensrud, 2007: Bias-corrected short-range ensemble forecasts of near surface variables during the 2005/06 cool season. *Wea. Forecasting*, **22**, 1274-1286.
45. Yussouf, N., and D. J. Stensrud, 2008: Reliable probabilistic quantitative precipitation forecasts from a short-range ensemble forecasting system during the 2005-2006 cool season. *Mon. Wea. Rev.*, **136**, 2157-2172.
46. Godfrey, C. M., and D. J. Stensrud, 2008: Soil temperature and moisture errors in Eta Model analyses. *J. Hydrometeor.*, **9**, 367-387.
47. Fujita, T., D. J. Stensrud, and D. C. Dowell, 2008: Precipitation-data assimilation in an ensemble Kalman filter system with initial condition and model physics uncertainties. *Wea. Forecasting*, **23**, 357-372.
48. Wandishin, M. S., D. J. Stensrud, S. L. Mullen, and L. J. Wicker, 2008: On the predictability of mesoscale convective systems: Two-dimensional simulations. *Wea. Forecasting*, **23**, 773-785..
49. Anabor, V., D. J. Stensrud, and O. L. L. de Moraes, 2008: Serial upstream-propagating mesoscale convective system events over southeastern South America. *Mon. Wea. Rev.*, **136**, 3087-3105.

50. Homar, V., and D. J. Stensrud, 2008: Subjective vs. objective sensitivity estimates: Application to a North African cyclogenesis. *Tellus*, **60A**, 1064-1078.
51. Engerer, N. A., D. J. Stensrud, and M. C. Coniglio, 2008: Surface characteristics of observed cold pools. *Mon. Wea. Rev.*, **136**, 4839-4849.
52. Ladwig, W. C., and D. J. Stensrud, 2009: Relationship between tropical easterly waves and precipitation during the North American monsoon. *J. Climate*, **22**, 258-271.
53. James, K. A., D. J. Stensrud, and N. Yussouf, 2009: Value of real-time vegetation fraction to forecasts of severe convection in high-resolution models. *Wea. Forecasting*, **24**, 187-210.
54. Heinselman, P. L., D. J. Stensrud, R. M. Hluchan, P. L. Spencer, P. C. Burke, and K. L. Elmore, 2009: Radar reflectivity-based estimates of mixed-layer depth. *J. Atmos. Oceanic Tech.*, **26**, 229-239.
55. Lakshmivarahan, S., and D. J. Stensrud, 2009: Ensemble Kalman filter: Application to meteorological data assimilation. *IEEE Control Systems Magazine*, **29**, 34-46.
56. Anabor, V., and D. J. Stensrud, 2009: Simulation of a serial upstream-propagating mesoscale convective system event over southeastern South America. *Mon. Wea. Rev.*, **137**, 2144-2163.
57. Reeves, H. D., and D. J. Stensrud, 2009: Synoptic-scale flow and valley cold pool evolution in the western United States. *Wea. Forecasting*, **24**, 1625-1643.
58. Yussouf, N., and D. J. Stensrud, 2010: Impact of high temporal frequency phased array radar data to storm-scale ensemble data assimilation using observation system simulation experiments. *Mon. Wea. Rev.*, **138**, 517-538.
59. Wandishin, M. S., D. J. Stensrud, S. L. Mullen, and L. J. Wicker, 2010: On the predictability of mesoscale convective systems: Three-dimensional simulations. *Mon. Wea. Rev.*, **138**, 863-885.
60. Wheatley, D. M., and D. J. Stensrud, 2010: The impact of assimilating surface pressure observations on severe weather events in a WRF mesoscale ensemble system. *Mon. Wea. Rev.*, **138**, 1673-1694.
61. Godfrey, C. M., and D. J. Stensrud, 2010: An empirical latent heat flux parameterization for the Noah land surface model. *J. Appl. Meteor. and Climatol.*, **49**, 1696-1713.
62. Coniglio, M. C., J. Y. Hwang, and D. J. Stensrud, 2010: Environmental factors in the upscale growth and longevity of mesoscale convective systems from the rapid update cycle analyses. *Mon. Wea. Rev.*, **138**, 3514-3539.
- Coniglio, M. C., J. Y. Hwang, and D. J. Stensrud, 2011: Corrigendum. *Mon. Wea. Rev.*, **139**, 2686-2688.
63. Reeves, H. D., K. L. Elmore, G. S. Manikin, and D. J. Stensrud, 2011: Assessment of forecasts during persistent valley cold pools in the Bonneville Basin by the North American Mesoscale Model. *Wea. Forecasting*, **26**, 447-467.
64. Clark, A. J., J. S. Kain, D. J. Stensrud, M. Xue, F. Kong, M.C. Coniglio, K. W. Thomas, Y. Wang, K. Brewster, X. Wang, S. J. Weiss, and J. Du, 2011: Probabilistic precipitation forecast skill as a function of ensemble size and spatial scale in a convection-allowing ensemble. *Mon. Wea. Rev.*, **139**, 1410-118.
65. Melnikov, V. M., R. J. Doviak, D. S. Zrnic, and D. J. Stensrud, 2011: Mapping Bragg scatter with a polarimetric WSR-88D. *J. Atmos. Oceanic Technol.*, **28**, 1273-1285
66. Gao, J., and D. J. Stensrud, 2012: Assimilation of reflectivity data in a convective-scale, cycled 3DVAR framework with hydrometeor classification. *J. Atmos. Sci.*, **69**, 1054-1065.

67. Yussouf, N., and D. J. Stensrud, 2012: Comparison of single-parameter and multi-parameter ensembles for assimilation of radar observations using the ensemble Kalman filter. *Mon. Wea. Rev.*, **140**, 562-586.
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69. Jones, T. A., and D. J. Stensrud, 2012; Assimilating AIRS temperature and mixing ratio profiles using an ensemble Kalman filter approach for convective-scale forecasts. *Wea. Forecasting*, **27**, 541-564.
70. Wheatley, D. M., D. J. Stensrud, D. C. Dowell, and N. Yussouf, 2012: Application of a WRF mesoscale data assimilation system to springtime severe weather events 2007-2009. *Mon. Wea. Rev.*, **140**, 1539-1557.
71. Jones, T. A., D. J. Stensrud, P. Minnis, and R. Palikonda, 2013: Evaluation of a forward operator to assimilate cloud water path into WRF-DART. *Mon. Wea. Rev.*, **141**, 2272-2289.
72. Yussouf, N., E. R. Mansell, L. J. Wicker, D. M. Wheatley, and D. J. Stensrud, 2013: The ensemble Kalman filter analyses and forecasts of the 8 May 2003 Oklahoma City tornadic supercell thunderstorm using single and double moment microphysics. *Mon. Wea. Rev.*, **141**, 3388-3412.
73. Cintineo, R. M., and D. J. Stensrud, 2013: On the predictability of supercell thunderstorm evolution. *J. Atmos. Sci.*, **70**, 1993-2011.
74. Knopfmeier, K. H., and D. J. Stensrud, 2013: Influence of mesonet observations on the accuracy of surface analyses generated by an ensemble Kalman filter. *Wea. Forecasting*, **28**, 815-841.
75. Gao, J., T. T. Smith, D. J. Stensrud, C. Fu, K. Calhoun, K. L. Manross, J. Brogdon, V. Lakshmanan, Y. Wang, K. W. Thomas, K. Brewster, and M. Xue, 2013: A realtime weather-adaptive 3DVAR analysis system for severe weather detections and warnings. *Wea. Forecasting*, **28**, 727-745.
76. Melnikov, V. M., R. J. Doviak, D. S. Zrnic, and D. J. Stensrud, 2013: Structures of Bragg scatter observed with the polarimetric WSR-88D radar. *J. Atmos. Oceanic Tech.*, **30**, 1253-1258.
77. Jones, T. A., J. Otkin, D. J. Stensrud, and K. Knopfmeier, 2013: Assimilation of satellite infrared radiances and Doppler radar observations during a cool season Observing System Simulation Experiment. *Mon. Wea. Rev.*, **141**, 3273-3299.
78. Sobash, R. A. and D. J. Stensrud, 2013: The impact of covariance localization for radar data on EnKF analyses of a developing MCS: Observation system simulation experiments. *Mon. Wea. Rev.*, **141**, 3691-3709.
79. Yussouf, N., J. Gao, D. J. Stensrud, and G. Ge, 2013: The impact of mesoscale environmental uncertainty on the prediction of a tornadic supercell storm using ensemble data assimilation approach. *Adv. Meteor.*, 1-15, doi:10.1155/2013/731647.
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81. Jones, T. A., J. Otkin, D. J. Stensrud, and K. H. Knopfmeier, 2014: Forecast evaluation of an Observing System Simulation Experiment assimilating both radar and satellite data. *Mon. Wea. Rev.*, **142**, 107-124.
82. Smith, T. M., J. Gao, K. M. Calhoun, D. J. Stensrud, K. L. Manross, K. L. Ortega, C. Fu, D. M. Kingfield, K. L. Elmore, V. Lakshmanan, and C. Riedel, 2014: Examination of a real-time 3DVAR analysis system in the Hazardous Weather Testbed. *Wea. Forecasting*, **29**, 63-77.
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85. Calhoun, K. M., T. M. Smith, D. M. Kingfield, J. Gao, and D. J. Stensrud, 2014: Forecaster use and evaluation of real-time 3DVAR analyses during severe thunderstorm and tornado warning operations in the Hazardous Weather Testbed. *Wea. Forecasting*, **29**, 601-613.
86. Gao, J., and D. J. Stensrud, 2014: Some observing system simulation experiments with a hybrid 3DEnVAR system for storm-scale radar data assimilation. *Mon. Wea. Rev.*, **142**, 3326-3346.
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91. Zhang, Y., F. Zhang, D. J. Stensrud, and Z. Meng, 2015: Practical predictability of the 20 May 2013 tornadic thunderstorm event in Oklahoma: Sensitivity to synoptic timing and topographical forcing. *Mon. Wea. Rev.*, **143**, 2973-2997.
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100. Reames, L. J., and D. J. Stensrud, 2017: Sensitivity of simulated urban-atmosphere interactions in Oklahoma City to urban parameterization. *J. Appl. Meteor. and Climatol.*, **56**, 1405-1430.
101. Pan, S., J. Gao, D. J. Stensrud, X. Wang, and T. A. Jones, 2018: Assimilation of radar radial velocity and reflectivity, satellite cloud water path and total precipitable water for convective scale NWP in OSSEs. *J. Atmos. Oceanic Technol.*, **35**, 67-89.
102. Reames, L. J., and D. J. Stensrud, 2018: Influence of a Great Plains urban environment on a simulated supercell. *Mon. Wea. Rev.*, **146**, 1437-1462.
103. Degelia, S. K., X. Wang, D. J. Stensrud, and A. Johnson, 2017: Understanding the impact of radar and in situ observations on the prediction of a nocturnal convection initiation event on 25 June 2013 using an ensemble-based multi-scale data assimilation system. *Mon. Wea. Rev.*, **146**, 1837-1859.
104. Banghoff, J. R., D. J. Stensrud, and M. R. Kumjian, 2018: Convective boundary layer depth estimation from S-band dual-polarization radar. *J. Atmos. Oceanic Technol.*, **35**, 1723-1733.
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106. Kerr, C. A., D. J. Stensrud, and X. Wang, 2019: Diagnosing convective dependencies on near-storm environments using ensemble sensitivity analyses. *Mon. Wea. Rev.*, **147**, 495-517.
107. Colbert, M., D. J. Stensrud, P. M. Markowski, and Y. P. Richardson, 2018: Processes associated with convection initiation in the North American Mesoscale Forecast System – Version 3 (NAMv3). *Wea. Forecasting*, **34**, 683-700.
108. Degelia, S. K., X. Wang, and D. J. Stensrud, 2019: An evaluation of the impact of assimilating AERI retrievals, kinematic profilers, rawinsondes, and surface observations on a forecast of a nocturnal convection initiation event during the PE CAN field campaign. *Mon. Wea. Rev.*, **147**, 2739-2764.
109. Zhang, Y., D. J. Stensrud, and F. Zhang, 2019: Simultaneous assimilation of radar and all-sky satellite infrared radiance observations for convection-allowing ensemble analysis and prediction of severe thunderstorms. *Mon. Wea. Rev.*, **147**, 4389-4409.
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111. Zhu, T., and D. J. Stensrud, 2019: Characterizing thunder-induced ground motions using fiber-optic distributed acoustic sensing array. *J. Geophys. Res. Atmos.*, **12**, 801-12, 823. <https://doi.org/10.1029/2019JD031453>
112. Banghoff, J. R., J. D. Sorber, D. J. Stensrud, G. S. Young, and M. R. Kumjian, 2020: A 10-year warm-season climatology of horizontal convective rolls and cellular convection in central Oklahoma. *Mon. Wea. Rev.*, **148**, 21-42.
113. Jimenez-Sanchez, G., P. M. Markowski, G. S. Young, and D. J. Stensrud, 2020: The Orinoco low-level jet: An investigation of its mechanisms of formation using the WRF model. *J. Geophys. Res. Atmos.*, 10,696–10,711. <https://doi.org/10.1029/2020JD032810>
114. Degelia, S. K., X. Wang, D. J. Stensrud, and D. T. Turner, 2020: Systematic evaluation of the impact of assimilating a network of ground-based remote sensing profilers for forecasts of nocturnal convection initiation during PE CAN. *Mon. Wea. Rev.*, <https://doi.org/10.1175/MWR-D-20-0118.1>

115. Hermoso, A., V. Homar, S. J. Greybush, and D. J. Stensrud, 2020: Tailored ensemble prediction systems: Application of seamless scale bred vectors. *J. Meteor. Soc. Japan*, **98**, 1029-1050, <https://doi.org/10.2151/jmsj.2020-053>.
116. Zhang, Y., D. J. Stensrud, and E. E. Clothiaux, 2021: Benefits of the Advanced Baseline Imager (ABI) for Ensemble-Based Analysis and Prediction of Severe Thunderstorms. *Mon. Wea. Rev.*, **149**, 313-332. <https://doi.org/10.1175/MWR-D-20-0254.s1>.
117. Zhang, Y., E. E. Clothiaux, and D. J. Stensrud, 2021: Correlation structures between satellite all-sky infrared brightness temperatures and the atmospheric states at storm scales. *Advances in Atmospheric Sciences*, <https://doi.org/10.1007/s00376-021-0352-3>
118. Santellanes, S. R., G. S. Young, D. J. Stensrud, M. R. Kumjian, and Y. Pan, 2021: Environmental conditions associated with horizontal convective rolls, cellular convection, and no organized circulations. *Mon. Wea. Rev.*, **145**, 1305-1316, <https://doi.org/10.1175/MWR-D-20-0207.1>
119. Eure, K. C., P. D. Mykolajtchuk, Y. Zhang, D. J. Stensrud, F. Zhang, S. J. Greybush, and M. R. Kumjian, 2023: Simultaneous assimilation of planetary boundary layer observations from radar and all-sky satellite observations to improve forecasts of convection initiation. *Mon. Wea. Rev.*, **151**, 795-813, <https://doi.org/10.1175/MWR-D-22-0188.1>
120. Brotzge, J. A., D. Berchoff, D. L. Carlis, F. H. Carr, R. H. Carr, J. J. Gerth, B. D. Gross, T. M. Hamill, S. E. Haupt, N. Jacobs, A. McGovern, D. J. Stensrud, G. Szatkowski, I. Szunyogh, and X. Wang, 2023: Challenges and opportunities in numerical weather prediction. *Bull. Amer. Meteor. Soc.*, **104**, <https://doi.org/10.1175/BAMS-D-22-0172.1>
121. Mykolajtchuk, P.D., K. C. Eure, D. J. Stensrud, Y. Zhang, S. J. Greybush, and M. R. Kumjian, 2023: Diagnosing factors leading to an incorrect supercell thunderstorm forecast. *Wea. Forecasting*, **38**, 1935-1951, <https://doi.org/10.1175/WAF-D-23-0010.1>.

### Textbook Publications

1. Stensrud, D.J., 1987: The expected branching solution: Preferred wavelengths and orientations. *Nonlinear Hydrodynamic Modeling: A Mathematical Introduction*, Chapter 12, H.N. Shirer (Ed.), Lecture Notes in Physics, **271**, Springer-Verlag, Heidelberg, 292-324.
2. Stensrud, D.J., 1987: Euclidean algorithm for finding common roots to polynomials. *Nonlinear Hydrodynamic Modeling: A Mathematical Introduction*, Appendix B, H.N. Shirer (Ed.), Lecture Notes in Physics, **271**, Springer-Verlag, Heidelberg, 510-513.
3. Stensrud, D.J., 1987: The method of eliminants for finding common roots to polynomials. *Nonlinear Hydrodynamic Modeling: A Mathematical Introduction*, Appendix C, H.N. Shirer (Ed.), Lecture Notes in Physics, **271**, Springer-Verlag, Heidelberg, 514-516.
4. Stensrud, D.J., H.E. Brooks, and S.J. Weiss, 2003: Weather prediction: Severe weather forecasting. *Encyclopedia of the Atmospheric Sciences*, Vol. 6, Academic Press, New York, 2568-2576.
5. Brooks, H., C. Doswell III, D. Dowell, R. Holle, B. Johns, D. Jorgenson, D. Schultz, D. Stensrud, S. Weiss, L. Wicker, and D. Zaras, 2003: Severe thunderstorms and tornadoes. *Handbook of Weather, Climate, and Water: Dynamics, Climate, Physical Meteorology, Weather Systems, and Measurements*, Chapter 29, T.D. Potter and B.R. Colman (Eds.), John Wiley and Sons, Hoboken, New Jersey, 575-619.
6. Stensrud, D. J., 2007: Parameterization Schemes: Keys to Understanding Numerical Weather Prediction Models. Cambridge University Press, 459 pp.

7. Stensrud, D. J., 2009: *Parameterization Schemes: Keys to Understanding Numerical Weather Prediction Models*. Cambridge University Press, 459 pp [reissued as paperback version].
8. Stensrud, D.J., H.E. Brooks, and S.J. Weiss, 2015: Weather prediction: Severe weather forecasting. *Encyclopedia of the Atmospheric Sciences*, Second Edition, Academic Press, New York, 313-322.
9. Stensrud, D.J., M. C. Coniglio, K. H. Knopfmeier, and A. J. Clark, 2015: Model physics parameterization. *Encyclopedia of the Atmospheric Sciences*, Second Edition, Academic Press, New York, 167-180.

#### Presentations and Seminars since 2004

International Conference on Storms, Brisbane, Australia, June 2004 (invited)  
 Iowa State University, Ames, Iowa, 2004 (invited)  
 New England High-resolution Temperature Forecasting Program Workshop, Sturbridge, MA, 2004  
 Weathernews First Inaugural Symposium, Norman, Oklahoma, 2004 (invited)  
 University of the Balearic Islands, Palma, Spain, 2005 (invited)  
 Royal Meteorological Society Symposium, Exeter, United Kingdom, 2005  
 International Workshop on Decision-Making in Weather Impacted Disasters, Norman, Oklahoma, 2006 (invited)  
 12th Conference on Mesoscale Meteorology, Waterville, NH, August 2007  
 Summer School on Mesoscale Meteorology and Predictability, Hytylä, Finland, August 2007 (invited)  
 First U.S.-China Symposium on Mesoscale Meteorology, Norman, Oklahoma, February 2008  
 Third Workshop on Ensemble-based Data Assimilation, Balcones Springs, TX, April 2008  
 24<sup>th</sup> Conference on Severe Local Storms, Savannah, GA, October 2008  
 OAR Senior Research Council, Washington DC, June 2009 (invited)  
 13<sup>th</sup> Conference on Mesoscale Processes, Salt Lake City, UT, August 2009  
 National Workshop on Mesoscale Probabilistic Prediction, Boulder, CO, September 2009 (invited)  
 Invited Lecturer, Parameterization Schemes, Institute for Atmospheric Physics, Chinese Academy of Sciences, Beijing, People's Republic of China, October 26-30, 2009  
 Jet Propulsion Laboratory, January 2010 (invited)  
 Texas A&M University, Department of Meteorology, February 2010 (invited)  
 James F. Kimpel Symposium, National Weather Center, Norman, Oklahoma, June 2010 (invited)  
 The Pennsylvania State University, 75<sup>th</sup> Anniversary Symposium, Department of Meteorology, July 2010 (invited)  
 25<sup>th</sup> Conference on Severe Local Storms, Keynote Speaker, Denver, October 2010 (invited)  
 Workshop on Model Physics, Camp Springs, MD, July 2011 (invited)  
 14<sup>th</sup> Conference on Mesoscale Processes, Los Angeles, CA, August 2011  
 6<sup>th</sup> European Conference on Severe Storms, Palma de Mallorca, Spain, October 2011  
 National Academies Committee on the Assessment of the NWS's Modernization Program, November 2011 (invited)  
 Weather Ready Nation: A Vital Conversation Workshop, Norman, OK, December 2011 (invited)  
 UCAR Briefing to Congress, Saving Lives in the Path of Destructive Tornadoes, April 2012 (invited)  
 Transportation Safety Advancement Group, ITS America, Washington, DC, May 2012 (invited)  
 WRF Users Workshop, Overview of Convection Parameterization, NCAR, June 2012 (invited)  
 Research Experience for Undergraduates, Norman, Oklahoma, July 2012 (invited)  
 26<sup>th</sup> Conference on Severe Local Storms, Nashville, TN, November 2012  
 Warn-on-Forecast and High-Impact Weather Workshop, Norman, OK, February 2013 (invited)  
 Research Experience for Undergraduates, Norman, Oklahoma, July 2013 (invited)  
 National Center for Atmospheric Research, Joint MMM/CGD Seminar, Boulder, CO, July 2013  
 NOAA/ESRL/Global Systems Division, Boulder, CO, July 2013 (invited)  
 National Weather Center Colloquium, Norman, OK, September 2013  
 26th Conference on Weather Analysis and Forecasting/22nd Conference on Numerical Weather Prediction, Atlanta, GA, February 2014  
 Warn-on-Forecast and High-Impact Weather Workshop, Norman, OK, February 2014  
 NOAA National Centers for Environmental Prediction, College Park, MD, July 2014 (invited)  
 Keynote Speaker, Fifth Research Meeting of Ultra-High Precision Mesoscale Weather Prediction, Nagoya University, Japan, March 2015 (invited)  
 Japan Meteorological Agency, Tokyo, Japan, March 2015 (invited)  
 NOAA Next Generation Global Prediction System (NGGPS) Workshop, College Park, MD, July 2015

NOAA National Centers for Environmental Prediction, College Park, MD, August 2015 (invited)  
Special Symposium on Seamless Weather and Climate Prediction – Expectations and Limits of Multi-scale Predictability,  
AMS Annual Meeting, New Orleans, LA, January 2016 (invited)  
AccuWeather, Inc., April 2016 (invited)  
ADAPT Symposium, May 2016 (invited)  
World Meteorological Organization Workshop, *Use and interpretation of mesoscale NWP for high-impact weather forecasting*, Hong Kong Observatory, Hong Kong, China, December 2016 (invited lecturer)  
Joint Penn State – University of Maryland Workshop on Data Assimilation, June 2017, College Park, MD.  
AMS Student Conference, Austin, TX, January 2018 (invited)  
CREST Symposium, Tokyo, Japan, January 2018 (invited)  
University of Wisconsin-Madison, April 2018 (invited)  
University of Maryland, April 2019 (invited)  
University of the Balearic Islands, Spain, May 2019 (invited)  
Northern Illinois University, September 2019 (invited)  
32<sup>nd</sup> Conference on Weather Analysis and Forecasting, Madison, WI, July 2023

#### Teaching Experience

*Parameterization Schemes for Numerical Weather Prediction*, METR 5353, Graduate Level Course, University of Oklahoma, 3 credits, 1994, 1996, 1999, 2001, 2003, 2005, 2007, 2009, 2012, 2014

*Advanced Atmospheric Dynamics*, METEO 422, Undergraduate Course, 3 credits, Fall 2015, Fall 2017

*Atmospheric Convection*, METEO 538, Graduate Course, 3 credits, Spring 2017

*Geophysical Fluid Dynamics*, METEO 520, Graduate Course, 3 credits, Fall 2018

*Parameterization Schemes for Numerical Weather Prediction*, METEO 528, Graduate Level Course, 3 credits, Fall 2016, Fall 2019, Fall 2021

*Meteorology and Visual Arts*, METEO/ART 51N, Undergraduate Course, 3 credits, Fall 2018-2020

*Mesoscale Meteorology*, METEO 414, Undergraduate Course, 4 credits, Spring and Fall 2022, Spring 2023

*Professional Development*, METEO 497, Undergraduate Course, 1 credit, Fall 2014-2022

*Professional Development for Graduate Students*, METEO 891, Graduate Course, 1 credit, Spring 2016, 2018-2023

#### Post-Doctoral Scientists Mentored

Crawford, Todd, University of Oklahoma (1999-2001)  
Homar, Victor, University of the Balearic Islands, Spain (2002-2004)  
Fujita, Tadashi, Japanese Meteorological Agency, Japan (2004)  
Reeves, Heather, North Carolina State University (2007-2009)  
Wheatley, Dustan, Purdue University (2007-2009)  
Clark, Adam, Iowa State University (2009-2011)

#### Visiting Graduate Students Mentored

Homar, Victor (Ph.D., 2000, University of the Balearic Islands, Spain)  
Spencer, Phillip (Ph.D. 2002, The Pennsylvania State University)  
Porter, Christopher W. (Ph.D. 2003, The Pennsylvania State University)  
Anabor, Vagner (Ph.D. 2008, Federal University of Santa Maria, Brazil)  
Cervenka, Daniela (M.S., 2013, ETH-Zurich, Switzerland)

#### Current Graduate Students

Eure, Keenan (Ph.D.)  
Stouffer, Braedon (M.S.)

Graduate Students Advised

Andrus, David S. (M.S. 1996)  
Coniglio, Michael C. (M.S. 1999)  
Elmore, Kimberly L. (Ph.D. 2000, co-chair Ken Crawford)  
Weekley, Daniel (M.S. 2001)  
Kurkowski, Nicole P. (M.S. 2002)  
McPherson, Renee (Ph.D. 2003, co-chair Ken Crawford)  
Nutter, Paul (Ph.D. 2003, co-chair Ming Xue)  
Coniglio, Michael C. (Ph.D. 2004, co-chair Michael Richman)  
Adams, Jennifer L. (M.S. 2005)  
Godfrey, Christopher M. (Ph.D. 2006, co-chair Lance Leslie)  
Ladwig, William (M.S. 2007)  
James, Kenneth (M.S. 2007)  
Wandishin, Matthew (Ph.D. 2008, co-chair Lance Leslie)  
Belobraydich, Rebecca (M.S., 2012)  
Kerr, Christopher (M.S., 2013, co-chair Xuguang Wang)  
Sobash, Ryan (Ph.D., 2013, co-chair Ming Xue)  
Kerr, Christopher (Ph.D., 2017, co-chair Xuguang Wang)  
Reames, Larissa (Ph.D., 2017, co-chair David Parsons)  
Banghoff, John (M.S., 2018, co-chair Matthew Kumjian)  
Santanelles, Sean (M.S., 2020, co-chair Matthew Kumjian)  
Eure, Keenan (M.S., 2021)  
Mykolatjchuk, Paul (M.S., 2021)  
Comer, Christina (M.S., 2023)

Student Committee Memberships

Chen, Chiarong (Ph.D. 1996)  
Crawford, Todd (Ph.D. 1998)  
Marshall, Curtis (M.S. 1998)  
Hale, Robert (M.S. 2000)  
Brotzge, Jerald (Ph.D. 2000)  
Basara, Jeffrey (Ph.D. 2001)  
Haynes, John (M.S. 2002)  
Spencer, Phillip (Ph.D. 2002)  
Porter, Christopher W. (Ph.D. 2003)  
Nascimento, Ernani (Ph.D. 2003)  
Heinselman, Pamela (Ph.D. 2004)  
Weiss, Christopher (Ph.D., 2004)  
Bukovsky, Melissa (M.S., 2004)  
Montroy, David (Ph.D., 2006)  
Barrett, Brad (Ph.D., 2007)  
Ramsey, Hamish (Ph.D., 2008)  
Goebbert, Kevin (Ph.D., 2009)  
Taylor, Andrew (Ph. D., 2010)  
Yussouf, Nusrat (Ph.D. 2010)  
Kluber, Todd (M.S., 2010)  
Johnson, Aaron (M.S., 2011)  
Galvez, Jose (Ph.D., 2011)  
Shafer, Chad (Ph.D., 2011)  
Supinie, Timothy (M.S., 2012)  
Lillo, Samuel (M.S., 2013)

Johnson, Aaron (Ph.D., 2014)  
White, Esther (Ph.D., 2014)  
Wendowski, Eric (M.S., 2015)  
Dennis, Eli (M.S., 2017)  
Colbert, Michael (M.S., 2017)  
Naegele, Steven (M.S., 2017)  
Pan, Sijie (M.S., 2017)  
Sun, Qiang (Ph.D., 2017)  
Anderson-Frey, Alexandria (Ph.D., 2017)  
Ying, Michael (Yue) (Ph.D., 2018)  
Jimenez, Giovanni (Ph.D., 2019)  
Minamide, Masashi (Ph.D., 2019)  
Degelia, Samuel (Ph.D., 2021)  
Klees, Alicia (Ph.D., 2020)  
Steinkruger, Dylan (M.S., 2020)  
Katona, Branden (Ph.D., 2020)  
Wang, Aaron (Ph.D., 2021)  
Chan, Joseph (Ph.D., 2022)  
Bitting, Miranda (M.S., 2023)  
Nardi, Kyle (Ph.D.)  
Fan, Da (Ph.D.)

#### Research Experience for Undergraduates Students

Markowski, Paul (1995)  
Fuller, Ryan (1998)  
Tobey, Barbara (2000)  
Lengyel, Craig (2002)  
Goree, David (2005)  
Groff, Faith (2016)

#### Hollings Scholars

Engerer, Nicholas (2007)  
Hwang, Jason (2008)  
Rockwell, Elizabeth (2010)  
Blank, Lindsay (2012)

#### Advisers

Fritsch, J. Michael  
Shirer, Hampton N.