

Scott M. Ellis

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Education

- Ph.D. University of Colorado 2010, Atmospheric Science
- Master of Science University of Oklahoma 1997, Meteorology.
- Bachelor of Science University of Oklahoma 1994, Meteorology, minor in Mathematics.

Professional Experience

National Center for Atmospheric research, Boulder CO.

- Project Scientist II, 2019 - present
- Project Scientist I, 2015 - 2019
- Associate Scientist III, 2005– 2015.
- Associate Scientist II, 2000 – 2005.
- Associate Scientist I, 1997– 2000.

Center for Analysis and Prediction of Storms (CAPS), Norman OK.

- Graduate research assistant, 1994 – 1997.
- Undergraduate student research assistant, 1992 – 1994.

Research interests and activities

Dr. Ellis' recent research interests focus on radar data quality and retrievals of physical quantities from airborne and ground-based radar data. He worked as an undergraduate on the problem of single-Doppler radar 3D wind retrievals and his Master of Science thesis investigated radar data assimilation into meso-scale models. For his Ph.D. dissertation, Dr. Ellis developed two new dual-wavelength radar retrievals for water vapor and total liquid water content, which both constitute new radar measurements.

Dr. Ellis has participated in 21 field campaigns in various roles including project science support, project manager and co PI. He has had a leading role in preparations for the deployment and producing the quality-controlled (QC) final data sets for the airborne and ground-based radar data and products. Together with colleagues Dr. Ellis has developed many of the QC procedures used routinely at EOL including the pointing calibration and correction of airborne Doppler velocity on HCR (HIAPER Cloud Radar) as well as the absolute calibration of reflectivity using the dual-polarimetric self-consistency principle for the S-PolKa radar. He has also developed many value added radar products including ground-based and airborne radar microphysical retrievals, environmental humidity and total liquid water content. Dr. Ellis has implemented multiple-Doppler wind retrievals using bistatic radar data for delivery to university researchers.

Dr. Ellis has been on the NCAR NEXRAD data quality team since 1997. This team has developed several algorithms that mitigate ground clutter contamination and range/velocity ambiguities. These algorithms have been implemented on the National Weather Service NEXRAD operational radar network.

Field Campaigns

- OTREC: Organization of Tropical East Pacific Convection, 2019: *Science support for NCAR HCR.*
- SOCRATES: Southern Ocean Clouds, Radiation, Aerosol Transport Experimental Study, 2018: *Acting project manager for NCAR HCR*
- CSET: Cloud Systems Evolution in the Trades, 2015: *Acting project manager for NCAR HCR*
- PECAN: Plains Elevated Convection At Night, 2015: *Acting project manager for NCAR S-Pol radar*
- Nor'easter: Winter storm observations using HCR, 2015.
- FRONT-ROSE: Radar Observations of Storms for Education, 2014 *Project Manager for NCAR S-Pol radar*
- DYNAMO: Dynamics of the Madden-Julian Oscillation, 2011/2012 *Project Manager for NCAR S-PolKa radar*
- TiMREX: Terrain-induced Monsoon Rainfall Experiment, 2008: *Acting project manager for NCAR S-Pol radar*
- REFRACTT06: Refractivity Experiment for H2O Research and Collaborative Operational Technology Transfer, 2006 *Co-Principle Investigator.*
- REFRACTT05: Refractivity Experiment for H2O Research and Collaborative Operational Technology Transfer, 2005: *Acting project manager for NCAR S-Pol radar*
- RICO: Rain In Cumulus over the Ocean, 2004/2005: *Acting project manager for NCAR S-PolKa radar*
- NAME: North American Monsoon Experiment, 2004: *Acting project manager for NCAR S-Pol radar*
- WISP04: Winter Icing and Storms Project, 2004: *Acting project manager for NCAR S-Pol radar*
- BAMEX: Bow Echo and Mesoscale Convective Vortex Experiment, 2003: *Data manager for NCAR ELDORA radar*
- IHOP: International H2O Project, 2002: *Acting project manager for NCAR S-Pol radar*
- IMPROVE-II: Improvement of Microphysical PaRameterization through Observational Verification Experiment II, 2001: *Data manager and acting project manager for NCAR S-Pol radar*
- IMPROVE: Improvement of Microphysical PaRameterization through Observational Verification Experiment, 2001: *Data manager and acting project manager for NCAR S-Pol radar*
- STEPS: Severe Thunderstorm Electrification and Precipitation Study, 2000: *Data manager and acting project manager for NCAR S-Pol radar*
- MAP: Mesoscale Alpine Programme, 1999: *Data manager for NCAR S-Pol radar*

- TRMM-LBA: Tropical Rainfall Measuring Mission, Large-scale Biosphere-Atmosphere, 1999: *Data manager for NCAR S-Pol radar*
- PRECIP98: Precipitation Project, 1998: *Data manager for NCAR S-Pol radar*

Recent Awards

- AMS Journal of Applied Meteorology and Climatology Editor's Award, 2017
- NCAR Scientific and Technical Advancement Award, for development of the Clutter Mitigation Decision algorithm for the NEXRAD radar network, 2009
- NCAR Special Recognition Award for Extensive Leadership and Volunteer Service in with the Earth Observing Laboratory Science Group, 2006

Committees

- Program committee for the Phased Array Radar Symposium at the AMS annual meeting, Phoenix AZ, 2019
- External Advisory Board, ARRC NSF-MRI program to develop a high temporal resolution Ka-Band Rapid DBF Scan Volumetric Imaging Radar.
- AMS Radar STAC Committee member, 2015 to present
- Co-convener, 38th AMS Conference on Radar Meteorology
- Associate Editor, AMS Journal of Applied Meteorology and Climatology, January 2012 – present
- NCAR Early Career Scientist Assembly Steering Committee, 2011 – 2015
- 35th AMS Conference on Radar Meteorology Program Committee, 2011
- U.S. Department of Energy Atmospheric System Research Review Panel, 2010

Invited Talks

- Improving the Detection Probability of Low Clutter to Signal Ratio (CSR) Clutter for CMD. KNU-CARE workshop on Aviation Weather, KyungJu City 22 - 23 September 2019.
- Humidity and Liquid Water Content Estimates Using Simultaneous S- and Ka-band Radar Measurements. KNU-CARE workshop on Aviation Weather, KyungJu City 22 - 23 September 2019.
- Dual-Wavelength Radar Retrievals of Water Vapor Profiles, NCAR Networking and Discovery Day, Boulder, CO, 20 March 2018.
- Estimating humidity from dual-wavelength S- and Ka-band radar observations. Invited seminar at the Kyungpook National University, Daegu Korea, 22 November 2016.
- Automated detection and removal of ground clutter in the U.S. NEXRAD operational radar network. Invited seminar at the Kyungpook National University, Daegu Korea, 22 November 2016.
- Estimating humidity from dual-wavelength S- and Ka-band radar observations. Invited seminar at the Korean Meteorological Agency, Seoul Korea, 23 November 2016.

- Automated detection and removal of ground clutter in the U.S. NEXRAD operational radar network. Keynote Speech: International Conference on Weather Forecast and Hydrological Applications of Radar. Seoul Korea, 24 November 2016.
- A bird's-eye view of a winter storm: The HIAPER Cloud Radar probes a Nor'easter. NCAR Networking and Discovery Day, Boulder, CO, 17 April 2015.
- The NCAR S-band Dual-polarimetric, Dual-wavelength S-PolKa Radar: A Unique Radar Platform Serving the Science Community. NCAR/ASP Seminar Series, Boulder CO, April 17, 2013.
- Multiple-Wavelength Radars: Assessment and Future Role. NSF Community Workshop on Radar Technologies, Boulder CO, 27 November 2012.

Education and Outreach

- Student best presentation judge, Phased Array Radar Symposium at the AMS annual meeting, Phoenix AZ, 2019
- Student best presentation judge, European Radar Conference, Toulouse France, 2012
- Organizer of DYNAMO Student Radar Workshop, Boulder CO, 2011
- Organizer of TIMREX International Student Radar Workshop, Ping Tung Taiwan, 2008
- Scientific mentor with the SOARS summer program, 2006
- EOL career development mentor for 2 EOL staff members

Publications

Refereed:

- Ellis, S. M., G. Meymaris, J. C. Hubbert, J. C. Krause, A. Daniel, G. T. McGehee, A. Heck and R. L. Ice, 2019: Improving the Detection Probability of Low Clutter-to-Signal Ratio Ground Clutter Contamination in the WSR-88D Dual-Polarimetric Variables. *J. Appl. Meteor. Climatol.* Under Review, 2019.
- Ellis, S.M., P. Tsai, C. Burghart, U. Romatschke, M. Dixon, J. Vivekanandan, J. Emmett, and E. Loew, 2019: Use of the Earth's Surface as a Reference to Correct Airborne Nadir-Looking Radar Radial Velocity Measurements for Platform Motion. *J. Atmos. Oceanic Technol.*, **36**, 1343–1360, [https://doi-org.cuucar.idm.oclc.org/10.1175/JTECH-D-19-0019.1](https://doi.org/cuucar.idm.oclc.org/10.1175/JTECH-D-19-0019.1)
- Janiszkeski, A., R. M. Rauber, S. M. Ellis, G. M. McFarquhar, and B. F. Jewett, 2019: Elevated convection and fine-scale frontal circulations within the comma-head of a U.S. East Coast winter cyclone. *Mon. Wea. Rev.* Under review
- Hubbert, J., T. Weckwerth, S. M. Ellis, M. Dixon, J. Wilson, R. Rilling and E. Loew, 2018: S-Pol's Polarimetric Data Reveal Detailed Storm Features (and Insect Behavior). *Bull. Amer. Meteor. Soc.*, 2045–2060, <https://doi.org/10.1175/BAMS-D-17-0317.1>.

- Albrecht et al., 2018: Cloud System Evolution in the Trades—CSET Following the Evolution of Boundary Layer Cloud Systems with the NSF/NCAR GV. *Bull. Amer. Meteor. Soc.*, <https://journals.ametsoc.org/doi/pdf/10.1175/BAMS-D-17-0180.1>.
- Rauber, R. M., S. M. Ellis, J. Vivekanandan, J. Stith, W. C. Lee., G. M. McFarquhar, B. F. Jewett and A. Janiszewski, 2017: Finescale Structure of a Snowstorm over the Northeastern United States: A First Look at High-Resolution HIAPER Cloud Radar Observations. *Bull. Amer. Meteor. Soc.*, **92**, 253–269, DOI:10.1175/BAMS-D-15-00180.1
- Martini, A., N. Viltard, S. M. Ellis, and E. Fontaine, 2015: Ice microphysics retrieval in the convective systems of the Indian Ocean during the CINDY-DYNAMO campaign. *Atmospheric Research*, doi:10.1016/j.atmosres.2014.12.013.
- Sahoo, S., X. Bosch-Lluis, S.C. Reising, S.M. Ellis, J. Vivekanandan, P. Zuidema, 2015: Retrieval of Slant Water Vapor Path and Slant Liquid Water from Microwave Radiometer Measurements during the DYNAMO Experiment. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, pp. 1 – 10, doi: 10.1109/JSTARS.2015.2445785
- Vivekanandan, J., S. M. Ellis, P. Tsai, E. Loew, W.-C. Lee, J. Emmett, M. Dixon, C. Burghart and S. Rauenbuehler, 2015: A wing pod-based millimeter wavelength airborne cloud radar, *Geosci. Instrum. Method. Data Syst.*, **4**, 161-176, doi:10.5194/gi-4-161-2015.
- Hubbert, J.C., S.M. Ellis, W. Chang, S. Rutledge and M. Dixon, 2014: Modeling and Interpretation of S-Band Ice Crystal Depolarization Signatures from Data Obtained by Simultaneously Transmitting Horizontally and Vertically Polarized Fields. *J. Atmos. Oceanic Technol.* **53**, Issue 6, pp. 1659-1677 doi: <http://dx.doi.org/10.1175/JAMC-D-13-0158.1>.
- Kalina E., K. Friedrich; S. M. Ellis; D. Burgess, 2014: Comparison of Disdrometer and X-band Mobile Radar Observations in Convective Precipitation. *Mon. Wea. Rev.*, **142**, 2414–2435. doi: <http://dx.doi.org/10.1175/MWR-D-14-00039.1>
- Hubbert, J.C., S.M. Ellis, W. Chang, Liou, Y. C., 2014: X-band Polarimetric Observations of Cross-Coupling in the Ice Phase of Convective Storms in Taiwan. *J. Atmos. Oceanic Technol.* **53**, Issue 6, pp. 1678-1695 doi: <http://dx.doi.org/10.1175/JAMC-D-13-0360.1>.
- Feng, Z., S. A. McFarlane, C. Schumacher and S. Ellis, 2013: Constructing A Merged Cloud-Precipitation Radar Dataset for Tropical Convective Clouds during the DYNAMO/AMIE Experiment at Addu Atoll. *J. Atmos. Oceanic Technol.* **31**, 1021–1042. doi: <http://dx.doi.org/10.1175/JTECH-D-13-00132.1>

- Bluestein, H. B., R. M. Rauber, D. W. Burgess, B. Albrecht, S. M. Ellis, Y. P. Richardson, D. P. Jorgensen, S. J. Frasier, P. Chilson, R. D. Palmer, S. E. Yuter, W.-C. Lee, D. C. Dowell, P. Smith, P. Markowski, K. Friedrich and T. Weckwerth, 2014: Radar in Atmospheric and Related Research: Current Systems, Emerging Technology, and Future Needs. *Bull. Amer. Meteor. Soc.*, **12**, 1850-1861.
- Ellis, S. M. and J. Vivekanandan, 2011: Liquid water content estimates using simultaneous S and K_a-band radar measurements. *Radio Sci.*, **46**, RS2021, doi:10.1029/2010RS004361.
- Ellis, S. M. and J. Vivekanandan, 2010: Water Vapor Estimates Using Simultaneous Dual-wavelength Radar Observations. *Radio Sci.*, **45**, doi:10.1029/2009RS004280.
- Hubbert J.C., S. Ellis, M. Dixon and G. Meymaris, 2010: Modeling, error analysis and evaluation of dual polarization variables obtained from simultaneous horizontal and vertical polarization transmit radar. Part I: Modeling errors caused by cross-coupling. *J. Atmos. Oceanic Technol.* **27**, 1583 - 1598.
- Hubbert J.C., S. Ellis, M. Dixon and G. Meymaris, 2010: Modeling, error analysis and evaluation of dual polarization variables obtained from simultaneous horizontal and vertical polarization transmit radar. Part II: Experimental data illustration. *J. Atmos. Oceanic Technol.* **27** 1599 - 1607.
- Hubbert, J.C., M. Dixon, S.M. Ellis, and G. Meymaris, 2009: Weather Radar Ground Clutter. Part I: Identification, Modeling, and Simulation. *J. Atmos. Oceanic Technol.*, **26**, 1165–1180.
- Hubbert, J.C., M. Dixon, and S.M. Ellis, 2009: Weather Radar Ground Clutter. Part II: Real-Time Identification and Filtering. *J. Atmos. Oceanic Technol.*, **26**, 1181–1197.
- Deierling, W., W. A. Petersen, J. Latham, S. Ellis, and H. J. Christian, 2008, The relationship between lightning activity and ice fluxes in thunderstorms, *J. Geophys. Res.*, **113**, D15210, doi:10.1029/2007JD009700
- Roberts, R.D., F. Fabry, P.C. Kennedy, E. Nelson, J.W. Wilson, N. Rehak, J. Fritz, V. Chandrasekar, J. Braun, J. Sun, S. Ellis, S. Reising, T. Crum, L. Mooney, R. Palmer, T. Weckwerth, and S. Padmanabhan, 2008: REFRACTT 2006. *Bull. Amer. Meteor. Soc.*, **89**, 1535–1548.

- Deierling, W., J. Latham, W. Petersen, S. Ellis and H. Christian, 2005: On the relationship of thunderstorm ice hydrometeor characteristics and total lightning measurements. *Atmos. Res.*, **76**, 114-126.
- Vivekanandan, J., G. Zhang, S. M. Ellis, D. Rajopadhyaya, and S. K. Avery, 2003: Radar reflectivity calibration using differential propagation phase measurement, *Radio Sci.*, **38**(3), 8049, 2003.
- Barthazy, E, S. Goeke, J Vivekanandan and S. M. Ellis 2001: Detection of snow and ice crystals using polarization radar measurements: comparison between ground-based in situ and S-Pol observations. *Atmos. Res.*, **59 – 60** (2001) 137 – 162.
- Keeler, R. J. and S. M. Ellis, 2000: Observational error covariance matrices for radar data Assimilation. *Phys. Chem. Earth (B)*, Vol. **25**, 1277-1280.
- Vivekanandan, J., S.M Ellis, D. S. Zrnice, R. Oye, A. V. Ryzhkov, and J. Straka, 1999: Cloud Microphysics Retrieval Using S-Band Dual-Polarization Radar Measurements. *Bull. Amer. Meteor. Soc.*, **80**, 381-388.
- Shapiro, A., S. Ellis, and J. Shaw, 1995: “Single-Doppler velocity retrievals with Phoenix II data: Clear air and microburst wind retrievals in the planetary boundary layer.” *J. Atmo. Sci.*, **52**, 9, 1265-1287.

Book Chapters:

- Hagen M., S. M. Ellis, F. Ewald, J. R. French, S. Haimov, G. M. Heymsfield, A. Pazmany, J. Delanoë, 2019: *Springer Handbook of Atmospheric Measurements; Chapter 35, Airborne Radar*. Springer Nature. In Press.
- Williams, J. K., C. Kessinger, J. Abernethy, and S. M. Ellis, 2009: *Artificial Intelligence Methods in the Environmental Sciences, Chapter 17 Fuzzy Logic Applications*. Springer Science+Business Media B.B., 347-379 pp.

Technical Skills

- Programming languages: Fortran, Matlab
- Operating systems: Linux/Unix, Microsoft Windows
- Office software: Microsoft Office, Illustrator
- Radar display software: SOLO II, Zebra, CIDD, Jazz

Conference Presentations:

- Ellis, Scott, Wen-Chau Lee, Kevin Manning, George Bryan, Ting-Yu Cha, Michael Bell, Jothiram Vivekanandan and Louis Lussier, 2019: Development and Preliminary Results of the Airborne Phased Array Radar (APAR) Observation Simulator

- (AOS). 39th Conference on Radar Meteorology, 16 September – 20 September 2019, Nara, Japan.
- Vivekanandan, Jothiram, Virendra P Ghate, Scott Ellis, Christian Schwartz, Jorgen Jensen, 2019: Estimation of Liquid Droplet Size and Liquid Water Content in Clouds and Drizzle Using Remote Sensing Measurements. 39th Conference on Radar Meteorology, 16 September – 20 September 2019, Nara, Japan.
- Ellis, S., G. Meymaris, J. C. Hubbert, M. J. Dixon, G. T. McGehee, J. C. Krause, and R. L. Ice, 2018: Improving the Detection Probability of Low Clutter-to-Signal-Ratio Ground Clutter Contamination in the WSR-88D. AMS Annual Meeting, January 7 - 11, 2018, Austin, TX.
- Hubbert J. C., S. Ellis and M. Dixon, 2018: Differential Reflectivity Bias and Antenna Temperature. AMS Annual Meeting, January 7 - 11, 2018, Austin, TX.
- Vömel, Holger, C. A. Wolff, S. P. Oncley, J. A. Moore, S. Ellis, and D. Axisa, 2018: Outcomes of the NCAR / EOL Workshop Unmanned Aircraft Systems for Atmospheric Research. AMS Annual Meeting, January 7 - 11, 2018, Austin, TX.
- Janiszewski Andrew, R. M. Rauber, G. McFarquhar, B. Jewett, and S. Ellis, 2017: Fine-scale Structure of the 2-3 February 2015 Nor'easter using high-resolution HIAPER Cloud Radar Observations. 38th Conference on Radar Meteorology, 23 August – 1 September 2017, Chicago IL.
- Vivekanandan, J., S. Ellis, M. Hayman, and J. Jensen, 2017: Backscatter and Propagation Observations of Radar and Lidar in Marine Cumulus Clouds: Simulations and Measurements. 38th Conference on Radar Meteorology, 23 August – 1 September 2017, Chicago IL.
- Dixon Michael J., J. C. Hubbert and S. Ellis, 2017: A ZDR calibration check using hydro-meteors in the ice phase. 38th Conference on Radar Meteorology, 23 August – 1 September 2017, Chicago IL.
- Rilling Robert A., U. Romatschke, J. Vivekanandan, and S. Ellis, 2017: Sea Surface Scanning for Monitoring Calibration and Stability of the NCAR Airborne W-Band Radar. 38th Conference on Radar Meteorology, 23 August – 1 September 2017, Chicago IL.
- Springer Adam C., R. M. Rauber and S. Ellis, 2017: Exploration of Supercooled water detection in Orographic Clouds Using Differential Attenuation at W-Band. 38th Conference on Radar Meteorology, 23 August – 1 September 2017, Chicago IL.
- Ellis Scott, E. Loew, C. Burghart, P. S. Tsai, M. J. Dixon, J. M. Emmett, J. Vivekanandan, and W. C. Lee, 2017: Use of the Earth's surface as a reference to

- correct airborne radar radial velocity measurements for platform motion. 38th Conference on Radar Meteorology, 23 August – 1 September 2017, Chicago IL.
- Lee, Wen-Chau, Jothiram Vivekanandan, Scott Spuler, Matt Hayman, and Scott Ellis, 2017: The NCAR HCR, HSRL and H2O DIAL Systems. 2nd International Conference on Airborne Research for the Environment (ICARE), Oberpfaffenhofen, 10-13 July 2017
- Rilling, R, U. Romatschke, J. Vivekanandan, and S. M. Ellis, 2017: A Proxy Calibration Monitoring Technique for the NCAR Airborne W-band Radar. EGU General Assembly 2017.
- Wolff, C., H. Vomel, S. Ellis, S. P. Oncley, J. A. Moore, M. Lord, and D. Axisa, 2017: What is the Current Status of Atmospheric Research using Unmanned Aircraft Systems? Results of a Community Survey. AMS Annual Meeting, January 23-27, 2017, Seattle, WA.
- Ellis, S. M., J. Vivekanandan, D. Albo, and G. Meymaris, 2017: Verification of Dual-wavelength Humidity Profile Retrievals Using S-PolKa During the DYNAMO Field Campaign. AMS Annual Meeting, January 23-27, 2017, Seattle, WA.
- Schwartz, Michael C, Virendra P Ghatge, Jothiram Vivekanandan, Peisang Tsai and Scott M Ellis, 2015: Retrievals of Vertical Air Motion from the HIAPER Cloud Radar during CSET. AGU Fall Meeting, 14 – 18 December 2015, San Francisco CA.
- Ellis, S.M., R. M. Rauber, P. Tsai, J. M. Emmett, E. Loew, C. D. Burghart, M. J. Dixon, J. Vivekanandan, S. Rauenbuehler, J. L. Stith, and W. C. Lee, 2015: The HIAPER Cloud Radar Performance and Observations During Winter Storm Observations of a Nor'easter. 37th Conference on Radar Meteorology, 14 – 18 September 2015, Norman OK.
- Serke, D. J., M. C. King, S. M. Ellis, and R. Hansen, 2015: Performance of radar-based in-flight icing detection algorithms compared to vibrating wire sondes. 37th Conference on Radar Meteorology, 14 – 18 September 2015, Norman OK.
- Hubbert, J. C., M. Dixon, G. Meymaris, and S. M. Ellis, 2015: Zdr calibration instability: an experimental analysis of the responsible radar components. 37th Conference on Radar Meteorology, 14 – 18 September 2015, Norman OK.
- Vivekanandan, J., S. Ellis, B. Morley, P. Tsai, and S. Spuler, 2015: Retrieval of Cloud Microphysics from HIAPER Cloud Radar Measurements. 37th Conference on Radar Meteorology, 14 – 18 September 2015, Norman OK.
- Tsai, P., S. M. Ellis, C. Burghart, J. M. Emmett, M. J. Dixon, E. Loew, J. Vivekanandan, and S. Rauenbuehler, 2015: Engineering Challenges of the HIAPER Cloud Radar:

- Real-time Active Platform Stabilization and Pressure/Temperature Control. 37th Conference on Radar Meteorology, 14 – 18 September 2015, Norman OK.
- Rauber, R. M., S. M. Ellis, J. Vivekanandan, J. L. Stith, W. C. Lee, G. M. McFarquhar, and B. F. Jewett, 2015: Convection, turbulence, generating cells and other fine scale structures within a Nor'easter: a first look at high resolution HIAPER Cloud Radar Observations. 37th Conference on Radar Meteorology, 14 – 18 September 2015, Norman OK.
- Ellis, S. M. and J. Vivekanandan, 2015: Dual-wavelength humidity profiles and liquid water content retrievals using S-PolKa During the DYNAMO Field Campaign. 37th Conference on Radar Meteorology, 14 – 18 September 2015, Norman OK.
- Meymaris, G., M. Dixon, S. M. Ellis, and J. Hubbert, 2015: Clutter Mitigation Decision (CMD) Development and Evaluation using Neural Networks. 37th Conference on Radar Meteorology, 14 – 18 September 2015, Norman OK.
- Yuter S. E., N. A. Corbin, S. Rhodes, S. Berry, M. A. Miller, S. M. Ellis, and P. C. Kennedy, 2015: Radar Observations of Storms for Education: Real storm examples for the mesoscale course classroom. AMS Conference on Mesoscale Processes, 3 – 6 August 2015 Boston, MA.
- Ice, R. L., G.T. McGehee, J. C. Krause, J. N. Chrisman, A.E. Daniel, J. C. Hubbert, M. Dixon, S. Ellis and G Meymaris, 2015: Identifying and Mitigating Clutter for Polarimetric Variables. 32nd Conference on Environmental Information Processing Technologies, AMS Annual Meeting, January 10-14, 2015, Phoenix, AZ.
- Yuter S. E., N. A. Corbin, M. A. Miller, S. M. Ellis, and P. C. Kennedy, 2015: Radar Observations of Storms for Education: A bridge between idealized conceptual diagrams and real weather. 95th American Meteorological Society Annual Meeting, January 04 - 08, 2015, Phoenix, AZ.
- Vivekanandan, J. and S.M. Ellis, 2014: Reflectivity Calibration and Radial Wind Correction for HIAPER Cloud Radar International Conference on Mesoscale Meteorology and Tropical Cyclones, 15 September – 18 September 2014, Boulder CO
- Ellis, S.M., J. Vivekanandan, and W.C. Lee, 2014: Dual-wavelength humidity profiles and liquid water content retrievals using S-PolKa. International Conference on Mesoscale Meteorology and Tropical Cyclones, 15 September – 18 September 2014, Boulder CO
- Ellis S.M. and Hubbert J.C., 2014: Interpreting Simultaneous horizontal and vertical polarization transmit radar data collected during TiMREX, International Conference on Mesoscale Meteorology and Tropical Cyclones, 15 September – 18 September 2014, Boulder CO

- Hubbert J.C. and S.M. Ellis, 2014: Microphysical interpretation of coincident simultaneous and fast alternating horizontal and vertical polarization transmit data, 8th European Conference on Radar Meteorology, 1-5 September 2014, Garmisch-Partenkirchen, Germany
- Ellis S. M., D. Albo, T. M. Weckwerth, J. C. Hubbert, and M. J. Dixon, 2014: Development of a Real-time Data Quality Index for the S-Pol Radar, 8th European Conference on Radar Meteorology, 1-5 September 2014, Garmisch-Partenkirchen, Germany
- Serke David J., NCAR, Boulder, CO; and S. Ellis, J. Hubbert, D. Albo, C. Johnston, C. Coy, and M. Politovich, 2013: In-flight icing hazard detection with dual and single polarimetric moments from operational NEXRADs, 16-20 September 2013, Breckenridge, CO
- Ellis S. M., J. C. Hubbert, M. J. Dixon, and G. Meymaris: 2013: Evaluation of the Clutter Mitigation Decision Performance as a Function of Clutter to Signal Ratio, 36th Conference on Radar Meteorology, 16-20 September 2013, Breckenridge, CO
- Ellis S. M., D. Albo, T. M. Weckwerth, J. C. Hubbert, and M. J. Dixon, 2013: Development of a Real-time Data Quality Index for the S-Pol Radar, 36th Conference on Radar Meteorology, 16-20 September 2013, Breckenridge, CO
- Hubbert J.C., S. M. Ellis and W. Y. Chang Microphysical Interpretation of both Fast Alternating and Simultaneous Horizontal and Vertical Transmit Data, 36th Conference on Radar Meteorology, 16-20 September 2013, Breckenridge, CO
- Sahoo, Swaroop, X. Bosch-Lluis, S. C. Reising, J. Vivekanandan, P. Zuidema, and S. M. Ellis, 2013: Comparison of Observations of the Spatial Distribution of Water Vapor Derived from Radar and Radiometer Measurements During the DYNAMO Field Campaign, 36th Conference on Radar Meteorology, 16-20 September 2013, Breckenridge, CO
- Sahoo, Swaroop, X. Bosch-Lluis, S. C. Reising, J. Vivekanandan, P. Zuidema, and S. M. Ellis, 2014, Retrieval of Water Vapor and Liquid Water from Ground-Based Microwave Radiometer Measurements using the Cloudy Sky Ratio 13th Specialist Meeting on Microwave Radiometry and Remote Sensing of the Environment, Pasadena CA.
- Ellis S. M., J. Vivekanandan, P. S. Tsai, E. Loew, C. Burghart, M. J. Dixon, J. M. Emmett, M. Strong, and W. Lee, 2013: Initial Evaluation of the HIAPER Cloud Radar Doppler Velocity Measurements, 36th Conference on Radar Meteorology, 16-20 September 2013, Breckenridge, CO

- Hubbert J.C., R. A. Rilling and S. M. Ellis, 2013: An evaluation of raindrop size distribution as a function of height using S-Pol polarimetric radar data from DYNAMO, 36th Conference on Radar Meteorology, 16-20 September 2013, Breckenridge, CO
- Thompson Elizabeth J., S. A. Rutledge, B. Dolan, R. A. Rilling, M. Dixon, S. M. Ellis, and W. Xu Radar Rainfall estimation during DYNAMO. 36th Conference on Radar Meteorology, 16-20 September 2013, Breckenridge, CO.
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