

Research focus: Basic and applied research related to clouds and precipitation. I have extensive experience distilling large data sets and combining information from multiple types of observations including: multispectral satellite, radar, lidar and in situ meteorological measurements.

Professional Employment

- 2005- Professor (2011-), Associate Professor (2007-2011) Assistant Professor (2005-2007), Department of Marine, Earth and Atmospheric Sciences, North Carolina State University, Raleigh, NC
- 1999-05 Research Associate Professor (2004-2005), Research Assistant Professor (1999-2004), Department of Atmospheric Sciences, University of Washington, Seattle, WA
- 1996-99 Research Scientist, Mesoscale Group, Department of Atmospheric Sciences, University of Washington, Seattle, WA
- 1988-90 Software Engineer III, Research Data Program, National Center for Atmospheric Research, Boulder, CO
- 1986-88 Technical Marketing Engineer, Graphics Division, Symbolics Inc., Los Angeles, CA
- 1983-86 Member of Technical Staff, Data Systems Laboratory, TRW Defense Systems Group, Redondo Beach, CA

Education

- 1996 Ph.D., University of Washington, Atmospheric Sciences.
- 1985-86 Additional coursework, University of Southern California, Artificial Intelligence and Probability Theory.
- 1983 B.S., Brown University, Geology-Physics/Mathematics, magna cum laude.

Leadership of Field Programs

- 2014 Radar Observations of Storms for Education, Colorado, Chief Scientist
- 2007- Stony Brook, NY, Meteorological Observatory, Co-chief Scientist
- 2006-09 Poga Mountain, NC, Meteorological Observatory, Chief Scientist
- 2001 EPIC Stratocumulus Study: Southeastern Pacific, Senior Scientist
- 1998-99 KWAJEX: Kwajalein, Marshall Islands, Project Science Coordinator, Project Scientist
- 1997 PACS TEPPS: Tropical eastern Pacific, Chief Scientist

Other Field Program Experience

- 2011-15 Wasatch Hydrometeor Aggregation and Riming Experiment, Alta, Utah, Radar Scientist
- 2010 Inhibition of Snowfall by Pollution Aerosols: Colorado, Radar scientist
- 2008 VAMOS Ocean Cloud Atmosphere Land Study (VOCALS): Southeastern Pacific, Radar scientist
- 2004 HYDROMET 2004: California, Disdrometer scientist
- 2003 PACJET 2003: California, Disdrometer scientist
- 2001 IMPROVE II: Oregon, Disdrometer scientist
- 1995 COAST II: Washington, Aircraft flight planning and mission summary preparation
- 1993 COAST: Washington, Aircraft radar scientist and cloud physics scientist

- 1992-93 TOGA-COARE: Honiara, Solomon Islands, Aircraft radar scientist and cloud physics scientist
- 1991 CaPE: Florida, Doppler and dual polarization radar scientist, aircraft scientist, scan coordinator
- 1988-90 Several field projects in Denver, CO area related to demonstration of Terminal Doppler Weather Radar (TDWR) and nowcasting for the FAA

Editorships, Affiliations, Committees, Fellowships, and Awards

- 2017 *Fellow*, American Meteorological Society
- 2012- *Editor*, American Meteorological Society Journal of Applied Meteorology and Climatology
- 2017- Faculty Fellow at the Center for Geospatial Analytics, North Carolina State University
- 2016- Adjunct Professor, School of Marine and Atmospheric Sciences, Stony Brook University
- 2016- Affiliate Faculty, Appalachian State University, North Carolina
- 2016 *Thank a Teacher* Recognition, North Carolina State University
- 2015- NCAR Earth Observing Laboratory Advisory Committee
- 2013 American Meteorological Society, Committee on Researcher Involvement in the AMS
- 2012 American Meteorological Society, Membership Subcommittee
- 2011-16 DOE Atmospheric System Research Science Team
- 2011-14 NASA MODIS Science Team
- 2010-14 NCAR Earth Observing Laboratory-Observing Facilities Assessment Panel
- 2009-10 DOE ARM Climate Research Facility Science Advisory Board Member
- 2009 NOAA National Severe Storms Laboratory Review Board Member
- 2008-09 Co-chair, American Meteorological Society, 13th Conference on Mesoscale Processes
- 2006-08 DOE ARM Climate Research Facility Science Advisory Board Member
- 2006-11 American Meteorological Society, Mesoscale Processes Committee
- 2005-07 Co-chair, Sierra Hydrometeorology Atmospheric River Experiment (SHARE) Scientific Steering Committee
- 2005-07 World Meteorological Organization/IUGG Science Assessment of Aerosol Effects on Precipitation Working Group
- 2005-06 NASA Global Precipitation Mission, Advisory Panel on Ground Measurements
- 2003-05 NASA Global Precipitation Mission, Ground Validation International Steering Group
- 2003 NASA Certificate of Appreciation for contributions to the Instrument Incubator Program and to the Earth Science Enterprise
- 2001- American Geophysical Union, Atmospheric Sciences/Precipitation and Cloud Committee
- 2001-03 Co-chair, NASA Global Precipitation Mission, Calibration and Validation of Satellite Precipitation Measurements Working Group
- 2000-06 NASA Precipitation Measurement Missions Science Team
- 1996 Promise of Excellence Award, Seattle Chapter, Women in Communications, Inc.
- 1992-95 EOS Global Change Fellowship
- 1990-92 NASA Space Grant Fellowship
- 1983 Sigma Xi Scientific Research Society
- 1979 Westinghouse Science Talent Search Honors for project on hydroponics for space missions.

Peer-reviewed articles and book chapters (underlined names are students and post-docs directly supervised)

(75) Mechem, D. B., C. S. Wittman, M. A. Miller, S. E. Yuter, and S. P. deSzoeki, 2017: Joint synoptic and cloud variability over the northeast Atlantic near the Azores. Submitted to *J. Appl. Meteor. Clim.*, August 2017.

- (74) Perry, L. B., A. Seimon, M. Andrade, J. L. Endries, S. E. Yuter, F. Velarde, S. Arias, M. Bonshoms, E. J. Burton, R. Winkelmann, C. M. Cooper, G. Mamani, M. Rado, M. Montoya, M. Quispe, 2017: Modes of precipitation delivery in the Cordillera Vilcanoto of Peru and Cordillera Real of Bolivia. *Annals of the Assoc. of American Geographers*, **107**, 309-322. DOI: 10.1080/24694452.2016.1260439
- (73) deSzoeko, S. P., K. L. Verlinder, S. E. Yuter and D. B. Mechem, 2016: The timescales of variability of marine low clouds. *J. Climate*, doi: 10.1175/JCLI-D-15-0460.1
- (72) Molthan, A. L., B. A. Colle, D. Stark and S. E. Yuter, 2016: Comparisons among modeled and observed reflectivity and fall speeds for snowfall of varied riming degree during winter storms on Long Island, NY. *Mon. Wea. Rev.*, <http://dx.doi.org/10.1175/MWR-D-15-0397.1>.
- (71) Wood, R., M. P. Jensen, J. Wang, C. S. Bretherton, S. M. Burrows, A. D. Del Genio, A. M. Fridlind, S. J. Ghan, V. P. Ghate, P. Kollias, S. K. Krueger, R. L. McGraw, M. A. Miller, D. Painemal, L. M. Russell, S. E. Yuter, P. Zuidema: 2016: Planning the next decade of coordinated research to better understand and simulate marine low clouds. *Bull. Amer. Meteor. Soc.*, **97**, 1699-1702, DOI:10.1175/BAMS-D-16-0160.1
- (70) Yu, C.-K., P.-R. Hsieh, S. E. Yuter, L.-W. Cheng, C.-Y. Lin, C.-L. Tsai and Y. Chen, 2016: Measuring droplet fall speed with a high-speed camera: Accuracy and outdoor applications. *Atmos. Meas. Tech.*, doi:10.5194/amt-9-1755-2016.
- (69) Burleyson, C. D. and S. E. Yuter, 2015: Sub-diurnal stratocumulus cloud fraction variability and sensitivity to precipitation. *J. Climate*. doi: 10.1175/JCLI-D-14-00648.1, **28**, 2968-2985.
- (68) Burleyson, C. D. and S. E. Yuter, 2015: Patterns of marine stratocumulus cloud fraction variability. *J. Appl. Meteor. Clim.* doi: 10.1175/JAMC-D-14-0178.1, **54**, 847-866.
- (67) Garrett, T. J, S. E. Yuter, C. Fallgatter, K. Shkurko, S. R. Rhodes, and J. L. Endries, 2015: Orientations and aspect ratios of falling snow. *Geophys. Res. Lett.*, doi:10.1002/2015GL064040.
- (66) Wilbanks, M., S. E. Yuter, S. P. deSzoeko, W. A. Brewer, M. A. Miller, A. M. Hall and C. D. Burleyson, 2015: Near-surface density currents observed in the southeast Pacific stratocumulus-topped marine boundary layer, *Mon. Wea. Rev.*, **143**, 3532-3555. 10.1175/MWR-D-14-00359.1
- (65) Wood, R., M. Wyant, C. S. Bretherton, J. Rémillard, P. Kollias, J. Fletcher, J. Stemmler, S. deSzoeko, S. Yuter, M. Miller, D. Mechem, G. Tselioudis, C. Chiu, J. Mann, E. O'Connor, R. Hogan, X. Dong, M. Miller, V. Ghate, A. Jefferson, Q. Min, P. Minnis, R. Palinkonda, B. Albrecht, E. Luke, C. Hannay, Y. Lin, 2015: Clouds, aerosol, and precipitation in the marine boundary layer: An ARM Mobile Facility deployment, *Bull. Amer. Met. Soc.*, **96**, 419-440.
- (64) 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. L. Smith, P. M. Markowski, K. Friedrich and T. M. Weckwerth, 2015: Radar in atmospheric sciences and related research: Current systems, emerging technologies and future needs. *Bull. Amer. Met. Soc.*, **95**, 1850-1861.
- (63) Colle, B. A., D. Stark, and S. E. Yuter, 2014: Surface microphysical observations within East Coast winter storms on Long Island, NY. *Mon. Wea. Rev.*, **142**, 3126-3146.
- (62) Cunningham, J. G. and S. E. Yuter, 2014: Atmospheric characteristics of cool-season intermittent precipitation near Portland, Oregon. *Mon. Wea. Rev.*, **142**, 1738-1757.

- (61) Garrett, T. J. and S. E. Yuter, 2014: Observed influence of riming, temperature, and turbulence on the fall speed of solid precipitation. *Geophys. Res. Lett.*, doi:10.1002/2014GL061016.
- (60) Mechoso, C. R., R. Wood, R. Weller, C. S. Bretherton, A. D. Clarke, H. Coe, C. Fairall, J. T. Farrar, G. Feingold, R. Garreaud, C. Grados, J. C. McWilliams, S. P. deSzoeki, S. E. Yuter, and P. Zuidema. 2014: Ocean-cloud-atmosphere-land interactions in the southeastern Pacific: The VOCALS Program. *Bull. Amer. Met. Soc.*, **95**, 357-375.
- (59) Yuter, S. E., 2014: "Precipitation Radar" in the Encyclopedia of Atmospheric Sciences, 2nd edition, edited by G. R. North, J. Pyle and F. Zhang. Academic Press, London.
- (58) Biasutti, M. and S. E. Yuter, 2013: Observed frequency and intensity of tropical precipitation from instantaneous estimates. *J. Geophys. Res.*, **118**, 9534–9551, doi:10.1002/jgrd.50694.
- (57) Burleyson, C. D., S. P. deSzoeki, S. E. Yuter, M. Wilbanks and W. A. Brewer, 2013: Ship-based observations of the diurnal cycle of southeast Pacific marine stratocumulus clouds and precipitation. *J. Atmos. Sci.*, **70**, 3876-3894, doi:10.1175/JAS-D-13-01.1.
- (56) Kingsmill, D. E., P. J. Neiman, B. J. Moore, M. Hughes, S. E. Yuter and F. M. Ralph, 2013: Kinematic and thermodynamic structures of Sierra barrier jets and overrunning atmospheric rivers during a land-falling winter storm in northern California. *Mon. Wea. Rev.*, **141**, 2015-2036.
- (55) Lin, Y., B. A. Colle, and S. E. Yuter 2013: Impact of moisture flux and freezing level on simulated orographic precipitation errors over the Pacific Northwest, *J. Hydromet.*, **14**, 140-152.
- (54) Miller, M. A, and S. E. Yuter, 2013: Detection and characterization of drizzle cells within marine stratocumulus using AMSR-E 89 GHz passive microwave measurements. *Atmos. Meas. Tech.*, **6**, 1-13, doi:10.5194/amt-6-1-2013.
- (53) Stark, D., B. A. Colle and S. E. Yuter, 2013: Observed microphysical evolution for two East Coast winter storms and the associated snow bands. *Mon. Wea. Rev.*, **141**, 2037-2057.
- (52) Yuter, S. E., M. A. Miller, M. D. Parker, P. M. Markowski, Y. Richardson, H. Brooks, and J. M. Straka, 2013: Comment on "Why do tornadoes rest on weekends?" by D. Rosenfeld and T. Bell. *J. Geophys. Res.*, doi:10.1029/2012JD018622.
- (51) Allen, G., G. Vaughan, T. Toniazzo, H. Coe, P. Connolly, S. E. Yuter, C. D. Burleyson, P. Minnis, and J. K. Ayers, 2013: Gravity wave--induced perturbations in marine stratocumulus, *Q. J. Roy. Met. Soc.*, doi:10.1002/qj.1952.
- (50) deSzoeki, S. P., S. E. Yuter, D. B. Mechem, C. W. Fairall, C. D. Burleyson, P. Zuidema 2012: Observations of stratocumulus clouds and their effect on the eastern Pacific surface heat budget along 20 °S, *J. Climate*, **25**, 8542-8567, 10.1175/jcli-d-11-00618.1.
- (49) Mechem, D. B., S. E. Yuter, and S. P. deSzoeki, 2012: Thermodynamic and aerosol controls in Southeast Pacific stratocumulus. *J. Atmos. Sci.*, **69**, 1250-1266.
- (48) Waliser, D. E., M. Moncrieff, D. Burridge, A. Fink, D. Gochis, B. N. Goswami, B. Guan, P. Harr, J. Heming, H.-H. Hsu, C. Jakob, M. Janiga, R. Johnson, S. Jones, P. Knippertz, J. Marengo, H. Nguyen, M. Pope, Y. Serra, C. Thorncroft, M. Wheeler, R. Wood, and S. Yuter, 2012: The "Year" of Tropical Convection (May 2008 to April 2010): Climate Variability and Weather Highlights, *Bulletin of the American Meteorological Society*, **93**, 1189-1218.

- (46) Biasutti, M., S. E. Yuter, C. D. Burleyson, and A. H. Sobel, 2011: Very high resolution rainfall patterns measured by TRMM Precipitation Radar. *Climate Dynamics*. 1-20, doi: 10.1007/s00382-011-1146-6
- (45) Sobel, A. H., C. D. Burleyson, and S. E. Yuter, 2011: Rainfall on small tropical islands. *J. Geophysical Research*, **116**, D08102, doi:10.1029/2010JD014695.
- (44) Wood, R., C. S. Bretherton, C. R. Mechoso, R. A. Weller, B. Huebert, B. Albrecht, H. Coe, G. Allen, G. Vaughan, P. Daum, C. Fairall, D. Chand, L. Gallardo Klenner, C. Grado Quispe, D. S. Covert, T. S. Bates, R. Krejci, F. Straneo, L. M. Russell, S. de Szoeke, A. Brewer, S. E. Yuter, A. Chaigneau, T. Toniazzo, P. Minnis, S. Abel, W. Brown, and S. Williams, 2011: The VAMOS Ocean-Cloud-Atmosphere-Land Study Regional Experiment (VOCALS-REx): Goals, platforms, and field operations. *Atmos. Chem. Phys.*, **11**, 627-654. doi:10.5194/acp-11-627-2011.
- (43) Yuter, S. E., D. A. Stark, J. A. Crouch, M. J. Payne and B. A. Colle, 2011: The impact of varying environmental conditions on the spatial and temporal patterns of orographic precipitation over the Pacific Northwest near Portland, Oregon., *J. Hydrometeorology*, **12**, 329-351.
- (42) Smith, B. L., S. E. Yuter, P. J. Neiman, and D. E. Kingsmill, 2010: Water vapor fluxes and orographic precipitation over Northern California associated with a land-falling atmospheric river. *Mon. Wea. Rev.*, **138**, 74-100.
- (41) Keighton, S., L. Lee, B. Holloway, D. Hotz, S. Zubrick, J. Hovis, G. Votaw, B. Perry, G. Lackmann, S. Yuter, C. Konrad, D. Miller, and B. Etherton, 2009: A collaborative approach to study northwest flow snow in the southern Appalachians. *Bull. Amer. Meteor. Soc.*, **90**, 979-991.
- (40) Sukovich, E. M., D. E. Kingsmill, and S. E. Yuter, 2009: Variability of graupel and ice crystal aggregates observed in tropical oceanic convection by aircraft during TRMM KWAJEX. *J. Appl. Meteor. Clim.*, **48**, 185-198.
- (39) Barrie, L., U. Lohmann, S. Yuter, 2008: Ch 1—Introduction in *Aerosol pollution impacts on precipitation: A scientific review*. WMO/IUGG International Aerosol Precipitation Science Assessment Group, Springer, 1-12.
- (38) Cifelli, R., S. W. Nesbitt, S. A. Rutledge, W. A. Petersen, and S. E. Yuter, 2008: Diurnal characteristics of precipitation features in the east Pacific: A comparison of the EPIC and TEPPS regions. *J. Climate*, **21**, 4068-4086.
- (37) Cotton, W. and S. Yuter, 2008: Ch 2—Principles of Cloud and Precipitation Formation in *Aerosol pollution impacts on precipitation: A scientific review*. WMO/IUGG International Aerosol Precipitation Science Assessment Group, Springer, 13-43.
- (36) Holder, C. T., S. E. Yuter, A. H. Sobel, and A. Aiyyer, 2008: The mesoscale characteristics of tropical oceanic precipitation during Kelvin waves and mixed-Rossby gravity waves. *Mon. Wea. Rev.*, **9**, 3446-3464.
- (35) Martner, B. E., S. E. Yuter, A. B. White, S. Y. Matrosov, D. E. Kingsmill, and F. M. Ralph: 2008: Raindrop size distributions and rain characteristics in California coastal rainfall for periods with and without a radar brightband. *J. Hydrometeorology*, **9**, 408-425.
- (34) Miller, M. A., and S. E. Yuter, 2008: Lack of correlation between chlorophyll a and cloud droplet effective radius in shallow marine clouds. *Geophys. Res. Lett.*, **35**, L13807, doi:10.1029/2008GL034354.

- (33) Novak, D. R., B. A. Colle, S. E. Yuter, 2008: A high resolution observational and modeling study of an intense mesoscale snowband over the northeast U.S. *Mon. Wea. Rev.*, **136**, 1433–1456.
- (32) Tanré, D., P. Artuxo, S. Yuter, and Y. Kaufman, 2008: Ch 5—In Situ and Remote Sensing Techniques for Measuring Aerosols, Clouds, and Precipitation in *Aerosol pollution impacts on precipitation: A scientific review*. WMO/IUGG International Aerosol Precipitation Science Assessment Group, Springer, 143-203.
- (31) Cifelli, R., S. Nesbitt, S. A. Rutledge, W. A. Petersen, and S. Yuter, 2007: Radar characteristics of precipitation features in the EPIC and TEPPS regions of the East Pacific. *Mon. Wea. Rev.*, **135**, 1576-1595.
- (30) Colle, B. A., and S. E. Yuter, 2007: The impact of coastal boundaries and small hills on the precipitation distribution across southern Connecticut and Long Island, NY. *Mon. Wea. Rev.*, **135**, 933-954.
- (29) Comstock, K., S. E. Yuter, R. Wood, and C. S. Bretherton, 2007: The three-dimensional structure and kinematics of drizzling stratocumulus. *Mon. Wea. Rev.*, **135**, 3767-3784.
- (28) Swann, A., A. H. Sobel, S. E. Yuter, and G. N. Kiladas, 2006: Observed radar reflectivity in convectively coupled Kelvin and Mixed Rossby-gravity waves. *GRL*, **33**, L10804, doi:10.1029/2006GL025979.
- (27) Yuter, S. E., D. Kingsmill, L. B. Nance, and M. Löffler-Mang, 2006: Observations of precipitation size and fall speed characteristics within coexisting rain and wet snow. *J. Appl. Meteor. Climo.*, **45**, 1450–1464. [Paper of Note highlighted in the Bulletin of American Meteorological Society, Sept 2006]
- (26) Comstock, K. K., C. S. Bretherton, and S. E. Yuter, 2005: Mesoscale variability and drizzle in southeast Pacific stratocumulus. *J. Atmos. Sci.* **62**, 3792-3807.
- (25) Yuter, S. E., R. A. Houze, Jr., E. A. Smith, T. T. Wilheit, and E. Zipser, 2005: Physical characterization of tropical oceanic convection observed in KWJEX. *J. Appl. Meteor.*, **44**, 385-415.
- (24) Bretherton, C. S., T. Uttal, C. W. Fairall, S. Yuter, R. Weller, D. Baumgardner, K. Comstock, and R. Wood, 2004: The EPIC 2001 stratocumulus study. *Bull. Amer. Meteor. Soc.*, **85**, 967-977.
- (23) Comstock, K. K., R. Wood, S. E. Yuter, and C. S. Bretherton, 2004: Reflectivity and rain rate in and below drizzling stratocumulus. *Quart. J. Roy. Meteor. Soc.*, **130**, 2891-2918.
- (22) Houze, R. A., Jr., S. Brodzik, C. Schumacher, S. E. Yuter, and C. R. Williams, 2004: Uncertainties in oceanic radar rain maps at Kwajalein and implications for satellite validation. *J. Appl. Meteor.*, **43**, 1114-1132.
- (21) Kingsmill, D. E., S. E. Yuter, A. J. Heymsfield, P. V. Hobbs, A. V. Korolev, J. L. Stith, A. Bansemmer, J. A. Haggerty, and A. L. Rangno, 2004: TRMM common microphysics products: A tool for evaluating spaceborne precipitation retrieval algorithms. *J. Appl. Meteor.*, **43**, 1598-1611.
- (20) Sobel, A. H., S. E. Yuter, C. S. Bretherton, and G. N. Kiladis, 2004: Large-scale meteorology and deep convection during TRMM KWJEX. *Mon. Wea. Rev.*, **132**, 422-444.
- (19) Hagen, M. and S. E. Yuter, 2003: Relation between radar reflectivity and rainfall rate during the MAP-SOP. *Quart. J. Roy. Meteor. Soc.*, **129**, 477-493.

- (18) Yuter, S. E., and R. A. Houze, Jr., 2003: Microphysical modes of precipitation growth determined by vertically pointing radar in orographic precipitation during MAP. *Quart. J. Roy. Meteor. Soc.*, **129**, 455-476.
- (17) Yuter, S. E., 2002: "Precipitation Radar" in the *Encyclopedia of Atmospheric Sciences*, edited by J. Holton, J. Pyle and J. Curry. Academic Press, London, 1833-1852.
- (16) Yuter, S. E., and R. A. Houze, Jr., 2002: Comment on "Partitioning tropical oceanic convective and stratiform rains by draft strength". *J. Geophys. Res.*, **107**, ACL-4.
- (15) Yuter, S. E., and W. S. Parker, 2001: Rain measurement on ship revisited: the 1997 PACS TEPPS cruise. *J. Appl. Meteor.*, **40**, 1003-1018.
- (14) Zeng, Z., S. E. Yuter, R. A. Houze, Jr. and D. E. Kingsmill, 2001: Microphysics of the rapid development of heavy convective precipitation. *Mon. Wea. Rev.*, **129**, 1882-1904.
- (13) James, C. N., S. R. Brodzik, H. Edmon, R. A. Houze, Jr., and S. E. Yuter, 2000: MountainZebra: Visualization of radar data over complex terrain. *Weather and Forecasting*, **15**, 327-338.
- (12) Houze, R. A., Jr., S. S. Chen, D. E. Kingsmill, Y. Serra, and S. E. Yuter, 2000: Convection over the Pacific warm pool in relation to the atmospheric Kelvin-Rossby wave. *J. Atmos. Sci.* **57**, 3058-3089.
- (11) Yuter, S. E., and R. A. Houze, Jr., 2000: The Pan American Climate Studies Tropical Eastern Pacific Process Study. Part I: ITCZ region. *Bull. Amer. Meteor. Soc.*, **81**, 451-481.
- (10) Yuter, S. E., Y. L. Serra, and R. A. Houze, Jr., 2000: The Pan American Climate Studies Tropical Eastern Pacific Process Study. Part II: Stratocumulus region. *Bull. Amer. Meteor. Soc.*, **81**, 483-490.
- (9) Yuter, S. E., and R. A. Houze, Jr., 1998: The natural variability of precipitating clouds over the western Pacific warm pool. *Quart. J. Roy. Meteor. Soc.*, **124**, 53-99.
- (8) Yuter, S. E., and R. A. Houze, Jr., 1997: Measurements of raindrop size distributions over the Pacific warm pool and implications for Z-R relations. *J. Appl. Meteor.*, **36**, 847-867.
- (7) Chen, S. S., R. A. Houze, Jr., B. E. Mapes, S. R. Brodzik, and S. E. Yuter, 1995: TOGA COARE satellite data summaries available on the World Wide Web. *Bull. Amer. Meteor. Soc.*, **76**, 329-333.
- (6) Steiner, M., R. A. Houze, Jr., and S. E. Yuter, 1995: Climatological characterization of three-dimensional storm structure from operational radar and rain gauge data. *J. Appl. Meteor.*, **34**, 1978-2007.
- (5) Yuter S. E., and R. A. Houze, Jr., 1995a: Three-dimensional kinematic and microphysical evolution of Florida cumulonimbus, Part I: Spatial distribution of updrafts, downdrafts, and precipitation. *Mon. Wea. Rev.*, **123**, 1921-1940.
- (4) Yuter, S. E., and R. A. Houze, Jr., 1995b: Three-dimensional kinematic and microphysical evolution of Florida cumulonimbus, Part II: Frequency distributions of vertical velocity, reflectivity, and differential reflectivity. *Mon. Wea. Rev.*, **123**, 1941-1963.
- (3) Yuter, S. E., and R. A. Houze, Jr., 1995c: Three-dimensional kinematic and microphysical evolution of Florida cumulonimbus, Part III: Vertical mass transport, mass divergence, and synthesis. *Mon. Wea. Rev.*, **123**, 1964-1983.

- (2) Yuter, S. E., R. A. Houze, Jr., B.F. Smull, F. D. Marks, Jr., J. R. Daugherty, and S. R. Brodzik, 1995: TOGA COARE aircraft mission summary images: An electronic atlas. *Bull. Amer. Meteor. Soc.*, **76**, 319-328.
- (1) Head, J. W., S. E. Yuter, S. C. Solomon, 1981: Topography of Venus and Earth: A test for the presence of plate tectonics. *American Scientist*, **69**, pp. 614-623.
<http://www.jstor.org/stable/27850712>.

Reports (not peer-reviewed)

Burleyson, C. D., S. E Yuter, and L. Rose, 2011: Atmospheric Observations Feasibility Study for the Lake Victoria Basin Commission. 16 pp.

Yuter, S. E., J. Koistinen, S. Di Michele, M. Hagen, A. Illingworth, S. Shimizu, and D. Wolff, 2004: GPM Ground Validation Basic Radar Products and Implications for Observation Strategies. Accessible at: www.arxiv.org, arXiv:physics/0401101, 11 pp.

Adkins, W., and S. E. Yuter, 2002: Report on Potential Tropical Open Ocean Precipitation Validation Sites, NASA Global Precipitation Mission Reports, *NASA/TM-2002-210010*, 77 pages.

Yuter, S., R. Houze, V. Chandrasekar, E. Foufoula-Georgiou, M. Hagen, R. Johnson, D. Kingsmill, R. Lawrence, F. Marks, S. Rutledge, and J. Weinman, 2002: GPM Draft Science Implementation Plan Ground Validation Chapter. Accessible at www.arxiv.org, arXiv:physics/0211095, 22 pp.

Yuter, S. E., 1984: Preliminary results of albedo correlation between Europa and Ganymede. *Advances in Planetary Geology*, NASA TM-86247, 212-216.

Funded Research Grants: total of over \$5M since July 2000

start date	end date	agency	title	role	collaborators	amount
July-17	July-20	NSF	Collaborative Research: Mechanisms governing synoptic-scale, rapid cloud dissipation in subtropical marine low clouds	PI	Mechem-U. Kansas	460,187
Sep-15	Aug-18	subcontract from Stony Brook U (NASA prime)	Nowcasting severe storm evolution and tracking storm life cycles in the northeast United States using GOES-R	PI	French- Stony Brook University	60,000
Feb-14	Jan-18	NSF	Collaborative Research: Observations and modeling of mesoscale precipitation banding in cool-season storms	PI	Colle-Stony Brook University	462,319
Mar-14	Feb-17	NSF	Real examples of classic storm structures for classroom use based on data from FRONT-PORCH	PI		92,479
Sep-13	Aug-17	NSF	Flipping the Script: Using short videos to promote learning in introductory geoscience courses	co-PI	PI-McConnell NCSU	10,000 (Yuter portion)
Sep-11	Jul-14	NOAA	Cooperative Institute for Climate and Satellites (CICS) - Yuter subcontract	PI		125,180

Sep-11	Sep-16	DOE	Collaborative Research: Cloudiness transitions within marine clouds near the Azores	PI	Mechem - U Kansas and deSzoeki Oregon State	510,182
Sep-11	Aug-15	NSF	Collaborative Research: The Wasatch Hydrometeor Aggregation and Riming Experiment	PI	Garrett - U. Utah	129,546
Apr-11	Sep-11	Lake Victoria Basin Commission	Strengthening Meteorological Services on Lake Victoria to enhance safety of navigation and exploitation of natural resources	co-PI	PI-Semazzi-NCSU	130,000 (Yuter portion)
Sep-10	Aug-13	NASA	NASA Space and Earth Science Fellowship Casey Burleyson	PI		90,000
Sep-10	Feb-15	NASA	Global characteristics of marine stratocumulus clouds and drizzle	PI		337,985
Sep-09	Aug-12	NSF	Collaborative Research: Intermittent and steady state processes in orographic precipitation	PI	Colle-Stony Brook University	345,879
Aug-09	Aug-10	ASTREC	Optimal reconfiguration of multiple small satellites for environmental monitoring	PI	Rao-University of Florida	12,800
Dec-08	Nov-11	NSF	Collaborative Research: Inhibition of snowfall by pollution aerosols	PI	Cotton-Colorado State	69,467
Jun-08	Jun-12	NOAA	Collaborative Research: Ship-based observations of air-sea interactions and stratocumulus cloud-aerosol-drizzle processes in VOCALS	PI	Fairall-NOAA, deSzoeki Oregon State	298,764
Jan-08	Dec-08	UNC-GA	Improving snowfall forecasts in western North Carolina	PI	Perry-Appalachian State	18,614
Sep-07	Sep-10	NASA	NASA Space and Earth Science Fellowship Matthew Miller	PI		83,960
Feb-06	Jan-10	NSF	Average and variability characteristics of orographic precipitation at multiple scales	PI		330,000
Nov-03	Nov-04	NASA	Global and local site oceanic precipitation validation	PI		158,000
Nov-03	Nov-04	NASA	GPM oceanic validation leading to PDR	PI		130,000
May-02	Jun-06	NSF	Scale and characteristics of convective processes in orographic rainfall	PI		404,444
Mar-01	Feb-04	NSF	Soundings, C-band radar, data synthesis and model intercomparisons for the EPIC 2001 stratocumulus study	co-PI	Bretherton, Wood-University of Washington	178,149
Jul-00	Jun-04	NASA	Joint probability analysis of the natural variability of oceanic precipitation	PI		512,000

Courses taught at North Carolina State University:

Dr. Yuter uses research-validated teaching methods, including extensive use of active learning, in all of her classes:

Introduction to Atmospheric Sciences I (MEA 213, 2-credits with laboratory, first course in meteorology required sequence) taught every fall from 2006 until 2014.

Introduction to Atmospheric Sciences (MEA 215, 4 credit course with laboratory). The two semester introductory course sequence MEA 213 and MEA 214 was combined into one class. Yuter taught the combined class for the first time in Spring 2016 under a temporary course number MEA 493.

Introduction to Meteorological Remote Sensing (MEA 511, 3-credit course for upper level undergraduates and graduate students), taught 9 times from 2006 to 2016. This class is also an elective in the Master of Geospatial Information Science and Technology program.

Atmospheric Convection (MEA 714, 3 credit graduate course), co-taught with Dr. Matthew Parker and offered alternate fall semesters. Yuter taught 100% of this course in Fall 2014 when Parker was on sabbatical.

Dynamics of Mesoscale Convective Systems (MEA 715, 3 credit graduate course), co-taught with Dr. Matthew Parker and offered alternate fall semesters.

Courses taught at University of Washington:

Meteorological Instruments and Observations (upper level undergraduate level course, co-taught with Dr. Dean Hegg)

Boundary Layer Meteorology (upper level undergraduate level course).

Faculty Development Workshops:

NCSU Building Future Faculty Program (20 March 2015), Presenter and Panelist.

On the Cutting Edge: *Preparing for an Academic Career in the Geosciences Workshop* (June 27-30, 2012, Chapel Hill NC), Workshop Leader.

Invited talks (last 2 years):

Gordon Research Conference on Radiation and Climate: Rapid Rollbacks of Marine Stratocumulus Clouds off the West Coast of Subtropical Africa, 19 July 2017, Lewiston, ME.

Center for Geospatial Analytics Forum, NCSU: Spatial frameworks for analysis of clouds and storms, 6 April 2017, Raleigh, NC.

Robert A. Houze, Jr., Symposium at 97th American Meteorological Society Annual Meeting: Reflections on radar observations of mesoscale precipitation. 24 Jan 2017, Seattle, WA

DOE ASR Marine Low Clouds Workshop: Overview of mesoscale organization, 27 Jan 2016, Brookhaven, NY.

AGU Fall Meeting: Mysterious Marine Stratocumulus, A54B-03, 18 Dec 2015, San Francisco, CA.

Stony Brook University School of Marine and Atmospheric Sciences seminar: Mysterious Marine Stratocumulus, 14 Oct 2015, Stony Brook, NY.

Supervision of Graduate Students (chair or co-chair of committee)**University of Washington, Department of Atmospheric Sciences**

Ph. D. Kimberly Comstock, 2006: Mesoscale variability and drizzle in southeast Pacific stratocumulus. Co-advised with Christopher Bretherton.

North Carolina State University, Department of Marine, Earth, and Atmospheric Sciences

Ph. D. Matthew A. Miller, 2010: Satellite observations of low marine clouds. Funded in part by a NASA Earth and Space Science Fellowship.

- Ph.D. Jeffrey G. Cunningham, 2012: Atmospheric characteristics of cool season intermittent precipitation near Portland, Oregon. Funded by the U.S. Air Force.
- Ph.D. Casey D. Burleyson, 2013: Environmental controls on stratocumulus cloud fraction. Funded in part by a NASA Earth and Space Science Fellowship.
- M.S. Christopher T. Holder, 2007: The mesoscale characteristics of tropical oceanic convection within Kelvin and mixed Rossby-gravity wave events.
- M.S. Matthew A. Miller, 2007: Evaluation of TRMM satellite precipitation retrievals and satellite-observed characteristics of marine shallow clouds.
- M.S. M. Jordan Payne, 2007: Three-dimensional microphysical and dynamical structures of winter storms in the U.S. Pacific Northwest.
- M.S. Barrett L. Smith II, 2007: The interaction of moisture fluxes and orographic precipitation over the mountains of northern California associated with a landfalling atmospheric river.
- M.S. Justin A. Crouch, 2009: Multi-season observational study of the thermodynamic, kinematic and precipitation structures within flooding and typical storms in the Oregon Cascades.
- M.S. Margaret L. Frey, 2013: Regional and interannual comparisons of marine stratocumulus precipitation.
- M.S. Matt C. Wilbanks, 2013: Near surface density currents observed in the southeast Pacific stratocumulus-topped marine boundary layer.
- M. S. Andrew M. Hall, 2014: Lifecycle characteristics of marine stratocumulus precipitation in the southeast Pacific.
- M.S. Nicole A. Corbin, 2016: Northern California's Central Valley spatial precipitation patterns associated with atmospheric rivers under different environmental conditions.
- M. S. John D. Hader, 2016: Propagating, cloud-eroding boundaries in southeast Atlantic marine stratocumulus.
- M.S. Nicole P. Hoban, 2016: Observed characteristics of mesoscale banding in coastal northeast U.S. snow storms.

Current graduate student: Spencer Rhodes

Advisor for non-thesis M.S. (dates are year when degree was completed): Katherine Rojowsky, 2010 ; John L'Heureux, 2012; Nan Zhang, 2012; Victoria Olivia, 2013.

Graduate committee member for students outside of NCSU: Kristin Goris (Ph. D., Duke U.), David Stark (M.S., Stony Brook U., 2012), Sara Ganetis (Ph.D., Stony Brook U., 2017), Jason Endries (M.S., Appalachian State U., 2017).

Undergraduate research assistants supervised at NCSU (* denotes presented poster at University Research Symposium and/or other conference): Casey Burleyson* (2006-07), David Stark* (2007-09), M. Tai Bryant* (2007-15), Lara Pagano (2007-08), John Boyer* (2007), Kevin Smith (2007), Jay Bozeman (2007), Clay McGee* (2008-10), Christina Aldereguia* (2009-10), Andrew Hall* (2009-11) Jeremy Freeman (2009-10), Matt Woelfle (2010-12), Cameron White* (2011), Jennifer Dean (2012-13), Megan Amanatides* (2014-15), Sara Berry* (2014-15), Jason Endries* (2014-15), Spencer Rhodes*

(2014-2016), Siu Kei (Edward) Chan* (2015-16), Emma Scott* (2015-17), Laura Tomkins* (2015-17), Levi Lovell* (2015-), Luke Allen* (2017-), Daniel Hueholt* (2017-).

Conference Abstracts (underlined names are students and post-docs directly supervised)

- Ganetis, S. A., B. A. Colle, N. P. Hoban, and S. E. Yuter, 2017: Environmental Conditions and Physical Processes for Snowbands in Northeast U.S. Winter Storms. *Abstracts, 18th Cyclone Workshop*, 1-6 October 2017, Sainte-Adèle, Québec, Canada.
- Ganetis, S. A., B. A. Colle, N. P. Hoban, and S. E. Yuter, 2017: Environmental Conditions Promoting Snowbands in Northeast U.S. Winter Storms. *Abstracts, 17th Conference on Mesoscale Processes*, 24-27 July 2017, San Diego, CA.
- Ganetis, S. A., B. A. Colle, N. P. Hoban, and S. E. Yuter, 2017: Multi-bands in the Comma Head of the 26-27 December 2010 Northeast U.S. Winter Storm. *Abstracts, 17th Conference on Mesoscale Processes*, 3-6 24-27 July 2017, San Diego, CA.
- Miller, M. A., S. E. Yuter, S. Rhodes, E. Scott, L. Lovell, B. A. Colle, L. Allen, M.T. Bryant, D. M. Heuholt and L. M. Tomkins, Complex aggregates within coastal northeast U.S. snow storms. *Abstracts, 17th Conference on Mesoscale Processes*, 3-6 24-27 July 2017, San Diego, CA.
- Yuter, S. E., N. P. Hoban, S. A. Ganetis, M. A. Miller, B. A. Colle, L. M. Tomkins, L. Lovell, M. Scott, L. R. Allen, D. M. Heuholt, and M. T. Bryant, 2017: Snow bands and velocity waves within northeast U.S. snow storms. *Abstracts, 17th Conference on Mesoscale Processes*, 3-6 24-27 July 2017, San Diego, CA.
- Endries, J. L., L. B. Perry, S. Yuter, A. Seimon, M. Andrade, G. Mamani, M. Bonshoms, F. Velarde, R. Winkelmann, M. Chchills, N. Montoya, and S. Arias, 2017: Vertical structure and characters of precipitation in the tropical high Andes of Bolivia and southern Peru., *Abstracts, Robert A. Houze, Jr., Symposium at 97th American Meteorological Society Annual Meeting*, January 2017, Seattle, WA.
- Ganetis, S. A., B. A. Colle, N. P. Hoban, and S. E. Yuter, 2017: Environmental conditions promoting snow bands in Northeast U.S. winter storms. *Abstracts, 28th Conference on Weather Analysis and Forecasting*, January 2017, Seattle, WA.
- Ganetis, S. A., B. A. Colle, N. P. Hoban, and S. E. Yuter, 2017: Investigation of multi-bands in the comma head of the 26-27 December 2010 Northeast U.S. winter storm. *Abstracts, 28th Conference on Weather Analysis and Forecasting*, January 2017, Seattle, WA.
- Hoban, N. P., S. E. Yuter, L. Tomkins, S. A. Ganetis, M. A. Miller, L. Lovell, S. R. Rhodes, E. Scott, and B. A. Colle, 2017: Observed characteristics of mesoscale banding in coastal northeast U.S. snow storms. *Abstracts, 28th Conference on Weather Analysis and Forecasting*, January 2017, Seattle, WA.
- Tomkins, L., N. Hoban, M. Miller and S. Yuter, 2017: Storm-relative movements of mesoscale snow bands within coastal Northeast U.S. storms. *Abstracts, AMS 16th Annual Student Conference*, January 2017, Seattle, WA.
- Yuter, S. E., and D. B. Mechem, 2017: Reflections on radar observations of mesoscale precipitation. *Abstracts, Robert A. Houze, Jr., Symposium at 97th American Meteorological Society Annual Meeting*, January 2017, Seattle, WA.
- Corbin, N. A., S. E. Yuter and D. E. Kingsmill, 2016: Spatial precipitation patterns associated with atmospheric river storms over the complex terrain of Northern California. *Abstracts, AMS 17th conference on Mountain Meteorology*. June 2016, Burlington, VT.
- Amanatides, M., S. Berry, N. A. Corbin, J. Endries, M. A. Miller, and S. E. Yuter, 2015: Radar observations of storms for education. *Abstracts, 14th Annual AMS Student Conference*, 4 Jan 2015, Phoenix, AZ.
- Ganetis, S. A., B. A. Colle, N. P. Hoban, S. E. Yuter and N. A. Corbin, 2015: Simulations of Multi-bands in the Comma Head of Northeast U.S. Winter Storms. *Abstracts, 16th Conference on Mesoscale Processes*, 3-6 August 2015, Boston, MA.
- Hoban, N. P., S. E. Yuter, S. A. Ganetis, B. A. Colle, and N. A. Corbin, 2015: Observed characteristics of mesoscale snow bands in the coastal northeast U.S. *Abstracts, 16th Conference on Mesoscale Processes*, 3-6 August 2015, Boston, MA.
- Miller, M. A., M. L. Frey and S. E. Yuter, 2015: Regional and interannual comparisons of marine stratocumulus precipitation detected using an AMSR-E 89-GHz passive microwave based method.

- Abstracts, 20th Conference on Satellite Meteorology and Oceanography, AMS Annual Meeting, Jan 2015, Phoenix, AZ.*
- Rhodes, S., J. Endries and S. Yuter, Atmospheric conditions and processes associated with different degrees of snowflake riming. *Abstracts, 14th Annual AMS Student Conference, 4 Jan 2015.*
- Scott, E., J. Endries, M. T. Bryant and S. Yuter, 2015: Freshly falling snow: Identifying new snowflake geometries from photographs. *AGU Virtual Poster Showcase, Nov 2015. Third prize winner.*
- 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. *Abstracts, 24th Symposium on Education, AMS Annual Meeting, 4-8 Jan 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: Real storm examples for the mesoscale course classroom. *Abstracts, 16th Conference on Mesoscale Processes, 3-6 August 2015, Boston, MA.*
- Yuter, S. E., 2015: Mysterious marine stratocumulus. *Abstracts, AGU Fall Meeting, Dec 2015.*
- Garrett, T. J. and S. E. Yuter, 2014: Multi-Angle Snowflake Camera observations of the effects of turbulence and temperature on hydrometeor fallspeed. *Abstracts, 14th AMS Conference on Cloud Physics, Boston, MA, July 2014.*
- Yuter, S. E. and T. J. Garrett, 2014: Observed influence of riming, temperature, and turbulence on the fallspeed of solid precipitation. *Abstracts, AGU Fall Meeting, Dec 2014.*
- Colle, B, A. Molthan, R. Yu, D. Stark and S. Yuter, 2013: Evaluation of model microphysics within precipitation bands of extratropical cyclones, *Abstracts, AGU Fall Meeting, Dec 2013.*
- deSzoek, S. P., D. B. Mechem, and S. E. Yuter, 2013: The relationship between lower tropospheric stability and marine stratiform cloudiness from seasonal to daily time scales. *Abstracts, AGU Fall Meeting, Dec 2013.*
- Hall, A. M., and Yuter, S.E., 2013: Lifecycle characteristics of drizzle cells in the southeast Pacific. Abstracts, 15th Conference on Mesoscale Processes., 6-9 Aug. 2013, Portland, OR.
- Perry, L.B., S.J. Keighton, L.G. Lee, D.K. Miller, S.E. Yuter, C.E. Konrad, M.T. Bryant. 2013. Synoptic influences on snowfall event characteristics in the southern Appalachian Mountains. *Proceedings of the 70th Eastern Snow Conference, 4-6 June 2013, Huntsville, ON, 141-157.*
- Yuter, S.E., 2013: Atmospheric characteristics of cool-season intermittent precipitation near Portland, Oregon. *Abstracts, 15th Conference on Mesoscale Processes., 6-9 Aug. 2013, Portland, OR.*
- Burleyson, C. D, S. E. Yuter and M. A. Miller, 2012: Observations of cloud fraction variability within southeast Pacific marine stratocumulus clouds. Abstracts, AGU Fall Meeting, Dec 2012.
- Frey, M., S. E. Yuter, and M. A. Miller, 2012: Regional comparisons of marine stratocumulus precipitation patterns. Abstracts, AGU Fall Meeting, Dec 2012.
- Hardin, N. R., S. E. Yuter and K. Friedrich and D. E. Kingsmill, 2012: Characteristics of orographic snowfall in a high altitude environment. Abstracts, 15th Conference on Mountain Meteorology, Steamboat Springs, CO, 20-24 August 2012.
- Kingsmill, D. E., P. Neiman, B. Moore. M. Hughes, S. Yuter and M. Ralph, 2012: Kinematic and thermodynamic structure of the Sierra Barrier Jet during a land-falling winter storm in northern California *Abstracts, 15th Conference on Mountain Meteorology, Steamboat Springs, CO, 20-24 August 2012.*
- Yuter, S. E., T. J. Garrett, C. Fallgatter, K. Shkurko, D. Howlett, J. Dean and N.R. Hardin, 2012: A new instrument for high resolution stereoscopic photography of falling hydrometeors with simultaneous measurement of fall speed. *Abstracts, AGU Fall Meeting, Dec 2012.*
- Biasutti, M., A. H. Sobel, S. E. Yuter, C. D. Burleyson, 2011: Frequency and intensity of precipitation events as seen by the TRMM Precipitation Radar. *Abstracts, AGU Fall Meeting, Dec 2011.*
- Allen, G., G. Vaughan, T. Toniazzo, H. Coe, P. Connolly, S. E. Yuter, C. D. Burleyson, P. Minnis, and J. K. Ayers, and C. D. Burleyson, 2011: Mesoscale variability of turbulence-generating mechanisms in southeast-Pacific stratocumulus. *Abstracts, 14th Conference on Mesoscale Processes., 1-4 Aug. 2011, Los Angeles, CA.*
- Colle, B. A., D. A. Stark, and S. E. Yuter, 2011: An observed and simulated cloud microphysical perspective of snowbands within coastal Northeast U.S. winter storms. *Abstracts, 14th Conference on Mesoscale Processes., 1-4 Aug. 2011, Los Angeles, CA.*

- Cunningham, J. G., S.E. Yuter, and B.A. Colle, 2011: Examining the nature and impact of Pacific Northwest cool season intermittent precipitation using objective radar tracking. *Abstracts, 14th Conference on Mesoscale Processes.*, 1-4 Aug. 2011, Los Angeles, CA.
- deSzoeki, S. P., N. Elmer, C. D. Burleyson, P. Zuidema, S. E. Yuter, C. W. Fairall, 2011: The eastern pacific diurnal cycle of clouds, solar forcing, and tropospheric waves. *Abstracts, AGU Fall Meeting*, Dec 2011.
- Hardin, N. R., S. E. Yuter and K. Friedrich, 2011: Observed vertical structure of snow storms in Steamboat Springs, CO: Orographic enhancement in a high altitude environment. *Abstracts, 24th Conference on Weather and Forecasting.*, 23–27 Jan. 2011, Seattle, WA.
- Hardin, N.R., S.E. Yuter, A.M. Hall, J.G. Cunningham, and B.A. Colle, 2011: Observed vertical structure of snow storms in Steamboat Springs, CO: Orographic enhancement in a high altitude environment. *Abstracts, 14th Conference on Mesoscale Processes.*, 1-4 Aug. 2011, Los Angeles, CA.
- Kingsmill, D., P. J. Neiman, S. E. Yuter, M. A. Hughes, B. Moore, 2011: Three-dimensional structure and evolution of the Sierra Barrier Jet: A CalWater case study from 14-16 February 2011. *Abstracts, AGU Fall Meeting*, Dec. 2011.
- McConnell, D. A., S. E. Yuter, C. D. Burleyson, N. R. Hardin, K. Ryker and J. A. Stempien, 2011: Building successful self-regulated learners: What 2000+ students have to tell us. *Abstracts, 2011 GSA Annual Meeting*, 9–12 October 2011, Minneapolis, MN.
- Stark, D. A., B. A. Colle and S. E. Yuter, 2011: Microphysical evolution within snow storms over Long Island, NY. *Abstracts, 24th Conference on Weather and Forecasting*, 23–27 Jan. 2011, Seattle, WA.
- Yuter, S.E., A. M. Hall, C. D. Burleyson, D. Leon and A. Brewer, 2011: Long-lived drizzle cells in inversion-topped boundary layers. *Abstracts, 14th Conference on Mesoscale Processes.*, 1-4 Aug. 2011, Los Angeles, CA.
- Yuter, S. E., A. M. Hall, J. G. Cunningham, N. R. Hardin and B. A. Colle , 2011: Cool-season intermittent precipitation cells in the Pacific Northwest. *Abstracts, 24th Conference on Weather and Forecasting.*, 23–27 Jan. 2011, Seattle, WA.
- Yuter, S. E., D. Kingsmill, C. White, M. Wilbanks, N. Hardin, and J. Cunningham, 2011: The spatial distribution of precipitation frequency for atmospheric river storms in Northern California. *Abstracts, AGU Fall Meeting*, Dec 2011.
- Burleyson, C., D. H. Sobel, and S. E. Yuter, 2010: Rain on tropical islands. *Abstracts, 29th Conference on Hurricanes and Tropical Meteorology*, 10-14 May 2010, Tucson, AZ.
- Burleyson, C. D., S. E. Yuter and S. P. deSzoeki, 2010: Observations of the diurnal cycle of marine stratocumulus during the VOCALS Regional Experiment. *Abstracts, AGU 2010 Fall Meeting*, December 2010, San Francisco, CA.
- Cunningham, J. G., S. E. Yuter and B. A. Colle, 2010: Quantitative comparisons of 3-D operational radar observations and model output over the Oregon Cascades. *Abstracts, 14th Conference on Mountain Meteorology*, Lake Tahoe, NV, 30 Aug-1 Sep 2010.
- de Szoeki, S. P., C. W. Fairall, C. D. Burleyson, P. Zuidema, and S. E. Yuter, 2010: Ship observations of southeastern tropical Pacific clouds along 20°S. *Abstracts, AGU 2010 Fall Meeting*, December 2010, San Francisco, CA.
- de Szoeki, S. P., P. Zuidema, C. W. Fairall, and S. E. Yuter, 2010: Ubiquitous drizzle from marine stratocumulus clouds. *Abstracts, AGU 2010 Fall Meeting*, December 2010, San Francisco, CA.
- de Szoeki, S. P., S. E. Yuter, P. Zuidema, C. W. Fairall, and W. A. Brewer, 2010: Ship-based observation of drizzling stratocumulus clouds from EPIC to VOCALS, *CLIVAR Exchanges*, **53**, 11-13.
- de Szoeki, S. P., and S. E. Yuter, 2010: When do stratocumulus clouds drizzle? *Abstracts, 13th Conference on Cloud Physics*, 28-June – 2 July 2010, Portland, OR.
- Mechem, D. B., S. E. Yuter, S. P. deSzoeki, 2010: Thermodynamic and aerosol controls on Eastern Pacific stratocumulus precipitation processes in VOCALS. *Abstracts, 13th Conference on Cloud Physics*, 28-June – 2 July 2010, Portland, OR.
- Smith, B. L. J. Blaes, and S. E. Yuter, 2010: Examination of a winter storm using a Micro-Rain Radar and AMDAR aircraft soundings, *Abstracts, 35th Annual meeting of the National Weather Association*, 2-7 October 2010, Tucson, AZ.
- Yuter, S. E., M. Biasutti, A. H. Sobel, and C. D. Burleyson, 2010: Seasonal and diurnal spatial patterns of precipitation frequency from the TRMM Precipitation Radar. *Abstracts, EGU, General Assembly 2010*, 2-7 May 2010, Vienna, Austria.

- Yuter, S. E., B. A. Colle, J. G. Cunningham, and D. J. Freeman, 2010: The role of low-level blocked flow on orographic precipitation enhancement in the Cascade Mountains, *Abstracts, Sixth European Conference on Radar in Meteorology and Hydrology*. September 2010, Sibiu, Romania.
- Brewer, W. A., S. C. Tucker, G. Feingold, H. Wang, C. Fairall and S. E. Yuter, 2009: Combined shipborne Doppler lidar and radar measurements made during the VAMOS Ocean-Cloud-Atmosphere-Land Study Regional Experiment (VOCALS-REx), *Abstracts, International Symposium on Tropospheric Profiling*, Netherlands, October 2009.
- Crouch, J. A. and S. E. Yuter, S. E., 2009: Multi-season observational study of precipitation structures along the Oregon Cascade windward slope. *Abstracts, 13th Conference on Mesoscale Processes*, August 2009, Salt Lake City, UT.
- de Szoeke, S. P. C. W. Fairall, S. Yuter, S. Tucker, D. E. Wolfe, A. Brewer, L. Bariteau, K. Moran, and S. Pezoa, 2009: Variability and vertical structure of clouds and turbulence in the stratocumulus-capped boundary layer during VOCALS. *Abstracts, AGU 2009 Fall Meeting*, December 2009, San Francisco, CA.
- Fairall, C., D. E. Wolfe, S. Pezoa, S. P. deSzoeke, and S. E. Yuter, 2009: Surface-layer and boundary-layer observations from the VOCALS-REX field program: Preliminary look at observations from the NOAA Ship Ronald H. Brown. *Abstracts, 16th Conference on Air-Sea Interaction*. January 2009, Phoenix, AZ.
- Mechem, D.B., S. E. Yuter, S. P. deSzoeke, and C. W. Fairall, 2009: Near-LES modeling of Eastern Pacific stratocumulus drizzle and cloud variability in VOCALS. *Abstracts, AGU 2009 Fall Meeting*, December 2009, San Francisco, CA.
- Perry, L. B., D. K. Miller, S. E. Yuter and J. L'Heureux, 2009: Snowfall Patterns and Processes in the Southern Appalachians: Preliminary results from an interdisciplinary field campaign, 2006-2009. *Abstracts, 64th Southeastern Division of the Association of American Geographers Meeting*, November 2009, Knoxville, TN.
- Sobel, A., C. Burleyson and S. Yuter, 2009: Rain on tropical islands. *Abstracts, Northeast Tropical Meteorology Conference*, June 2009, Rensselaerville, NY.
- Yuter, S. E., D. B. Mechem, C. W. Fairall and W. A. Brewer, 2009: Unexpectedly strong convection under an inversion-topped marine boundary layer. *Abstracts, 13th Conference on Mesoscale Processes*, August 2009, Salt Lake City, UT.
- Holder, C. T., S. E. Yuter, A. H. Sobel, and A. Aiyyer, 2008: The mesoscale characteristics of tropical oceanic precipitation during Kelvin waves and mixed-Rossby gravity waves. *Abstracts, TRMM 3rd NASA/JAXA International Science Conference*, February 2008, Las Vegas, NV.
- Kingsmill, D. E., S. E. Yuter, and E. M. Sukovich, 2008: Variability of graupel and ice crystal aggregates observed by aircraft during TRMM KWAJEX. *Abstracts, TRMM 3rd NASA/JAXA International Science Conference*, February 2008, Las Vegas, NV.
- Miller, M. A., and S. E. Yuter, 2008: Spurious precipitation in TMI retrievals within marine stratus. *Abstracts, TRMM 3rd NASA/JAXA International Science Conference*, February 2008, Las Vegas, NV.
- Miller, M. A., and S. E. Yuter, 2008: Characteristics of shallow non-precipitating clouds as observed by the Tropical Rainfall Measuring Mission satellite. *Abstracts, AGU 2008 Joint Assembly*, May 2008, Ft. Lauderdale, FL.
- Perry, L. B., D. Miller, S. E. Yuter, L. G. Lee, S. Keighton, 2008: Atmospheric controls on snowfall density in the southern Appalachian mountains. USA. *Abstracts, 65th Eastern Snow Conference*, May 2008, Fairlee, VT.
- Yuter, S. E., and D. E. Kingsmill, 2008: Joint Variability of Airborne Passive Microwave and Ground-based Radar Observations Obtained in the TRMM Kwajalein Experiment. *Abstracts, TRMM 3rd NASA/JAXA International Science Conference*, February 2008, Las Vegas, NV.
- Yuter, S. E., J. A. Crouch, B. A. Colle, and Y. Lin, 2008: Storm structure, freezing level height, and precipitation in the US Pacific Northwest. *Proceedings, Fifth European Conference on Radar in Meteorology and Hydrology*. June 2008, Helsinki, Finland.
- Yuter, S. E., K. K. Comstock, R. Wood and C. S. Bretherton, 2008: The three-dimensional structure and kinematics of drizzling stratocumulus in the southeast Pacific. *Abstracts, AGU 2008 Joint Assembly*, May 2008, Ft. Lauderdale, FL.

- Yuter, S. E., M. J. Payne, and B. A. Colle, 2008: Orographic precipitation and kinematic flow structures of winter storms over the U.S. Pacific Northwest. *Abstracts, 13th Conference on Mountain Meteorology*. August 2008, Whistler, Canada.
- Yuter, S. E., D. A. Stark, M. T. Bryant, B. A. Colle, L. B. Perry, J. Blaes, J. Wolfe, and G. Peters, 2008: Forecasting and characterization of mixed precipitation events using the MicroRainRadar. *Abstracts, Fifth European Conference on Radar in Meteorology and Hydrology*. June 2008, Helsinki, Finland.
- Fitz-Coy, N., W. W. Edmonson and S. Yuter, 2007: Microsatellites for studying Earth's energy balance. *NSF Workshop on Small Satellite Missions for Space Weather and Atmospheric Research*, May 2007, Arlington, VA.
- Holder, C. T., S. E. Yuter, A. H. Sobel, and A. Aiyer, 2007: The mesoscale characteristics of tropical oceanic precipitation during Kelvin waves and mixed-Rossby gravity waves. *Abstracts, 12th Conference on Mesoscale Processes*, August 2007, Waterville Valley, NH.
- Novak, D. R., B. A. Colle, and S. E. Yuter, 2007: A high-resolution observational and modeling comparison of mesoscale band life cycle during three recent northeast U.S. snowstorms. *Preprints, 22nd Conference on Weather Analysis and Forecasting/18th Conference on Numerical Weather Prediction*, June 2007, Park City, Utah, 3A.2.
- Novak, D. R., B. A. Colle, and S. E. Yuter, 2007: A comparison of mesoscale band life cycle during three recent northeast U.S. snowstorms. *Abstracts, 12th Conference on Mesoscale Processes*, August 2007, Waterville Valley, NH.
- Yuter, S. E., B. A. Colle, M. J. Payne, and Y. Lin, 2007: Three-dimensional microphysical and dynamical structures of winter storms in the U.S. Pacific Northwest: 3-year radar climatology and comparisons between operational weather radar observations and regional mesoscale model output. *Abstracts, 12th Conference on Mesoscale Processes*, August 2007, Waterville Valley, NH.
- Yuter, S. E., and D. E. Kingsmill, 2007: Joint variability of airborne passive microwave and ground-based radar observations obtained in the TRMM Kwajalein Experiment. *Abstracts, AGU 2007 Fall Meeting*, San Francisco, CA.
- Yuter, S. E., and L. B. Perry, 2007: Storm structures and precipitation characteristics of snow events in the southern Appalachian mountains. *Abstracts, 12th Conference on Mesoscale Processes*, August 2007, Waterville Valley, NH.
- Cifelli, R., S. Nesbitt, S. A. Rutledge, W. A. Petersen, and S. Yuter, 2006: Diurnal cycle characteristics of precipitation in the East Pacific. *27th Conference on Hurricanes and Tropical Meteorology*, Monterey, CA, 23-28 April, American Meteorological Society, 14D.7.
- Holder, C., S. Yuter, and A. Sobel, 2006: The effects of equatorial Kelvin waves and Mixed-Rossby gravity waves on the mesoscale structure of tropical oceanic convection. *Preprints, 4th European Conference on Radar in Meteorology and Hydrology*. 18-22 September 2006, Barcelona, Spain, P4.1.
- Kingsmill, D., and S. Yuter, 2006: Integrated analyses of microphysical, radar, and radiometric observations from TRMM/KWAJEX. *Abstracts, EGU General Assembly 2006*, Vienna, Austria, 1607-7962/gra/EGU06-A-09508.
- Kingsmill, D., S. E. Yuter, B. A. Colle, R. A. Houze, B. Geerts, D. P. Lettenmaier, P. J. Neiman, G. S. Poulos, R. B. Smith, B. F. Smull, W. J. Steenburgh, and M. Steiner, 2006: Overview of the Sierra Hydrometeorology Atmospheric River Experiment (SHARE). *12th Conference on Mountain Meteorology*, Sante Fe, NM, 28 August – 1 September 2006, American Meteorological Society, P1.1.
- Miller, M. and S. Yuter, 2006: Phantom precipitation and other problems in TRMM products. *Proceedings, Proceedings, 3rd Workshop on Precipitation Measurements*, Melbourne, Australia, 23-27 October 2006, International Precipitation Working Group, 10 pp.
- Swann, A., A. H. Sobel, S. E. Yuter, and G. N. Kiladas, 2006: Precipitation structures and atmospheric waves over the tropical ocean. *27th Conference on Hurricanes and Tropical Meteorology*, Monterey, CA, 23-28 April 2006, American Meteorological Society, P8.3.
- Yuter, S., B. Colle, T. Downing, Y. Lin, C. Spooner, J. Payne, and K. Comstock, 2006: Microphysical and dynamical structures of winter storms in the U. S. Pacific Northwest: Comparisons between regional mesoscale model output and operational weather radar observations. *Preprints, 4th European Conference on Radar in Meteorology and Hydrology*. 18-22 September 2006, Barcelona, Spain, P4.3.
- Yuter, S., M. Miller, J. Stout, R. Wood, J. Kwiatkowski, D. Horn, and C. Spooner, 2006: Remaining challenges in satellite precipitation estimation for the Tropical Rainfall Measuring Mission. *Preprints*,

- 4th European Conference on Radar in Meteorology and Hydrology*. 18-22 September 2006, Barcelona, Spain, 11.6.
- Colle, B. A., and S. E. Yuter, 2005: Understanding Precipitation Enhancement over Long Island, NY Using the WSR-88D and High Resolution Simulations. *11th Conference on Mesoscale Meteorology*, Albuquerque, NM, 24-29 October, American Meteorological Society.
- Comstock, K., S. Yuter, R. Wood, 2005: Microphysical and kinematic structures within drizzling stratocumulus in the southeast Pacific, *Abstracts, AGU 2005 Fall Meeting*, San Francisco, CA, A16A-0008.
- MacLeod, A., J. Roering, S. Yuter: 2005: Comparing spatial and temporal patterns of landslides and rainfall using remote sensing. *Abstracts, AGU 2005 Fall Meeting*, San Francisco, CA, P41B-0932
- Martner, B., S. Yuter, A. White, D. Kingsmill, and F. M. Ralph, 2005: Raindrop size distributions and Z-R relations in coastal rainfall for periods with and without a radar bright band. *Preprints, 11th Conference on Mesoscale Processes*, Albuquerque, NM, 24-29 October, American Meteorological Society.
- Swann, A., A. Sobel, S. Yuter, and G. Kiladis, 2005: Precipitation structures and tropical waves over the tropical ocean. *Abstracts, AGU 2005 Fall Meeting*, San Francisco, CA, A16A-0021.
- Yuter, S. and K. Comstock, 2005: Satellite and radar characteristics of drizzling marine stratocumulus in the southeast Pacific, *Abstracts, AGU 2005 Fall Meeting*, San Francisco, CA, A16A-0009.
- Yuter, S. E., B. A. Colle, C. L. Spooner, and T. K. Downing, 2005: Structural characteristics of winter storms in southern Washington and northern Oregon: Prototypes for routine comparison between regional model output and WSR-88D radar observations. *11th Conference on Mesoscale Meteorology*, Albuquerque, NM, 24-29 October, American Meteorological Society.
- Yuter, S. E., C. L. Spooner, and T. K. Downing, 2005: Structural characteristics of winter storms in southern Washington and northern Oregon. *Abstracts, Pacific Northwest Weather Conf.*, March 2005, Seattle, WA.
- Yuter, S. E., J. Stout, R. Wood, J. Kwiatkowski and D. Horn, 2005: Relative errors in TRMM satellite Version 5 and Version 6 products: Steps forward and backward. *Preprints, 32st Conference on Radar Meteorology*, Albuquerque, NM, 24-29 October, American Meteorological Society.
- Cifelli, R., S. W. Nesbitt, S. A. Rutledge, W. A. Petersen, and S. E. Yuter, 2004: Convective variability across the East Pacific: A comparison of precipitation structure in the TEPPS and EPIC domains. *Preprints, 26th Conference on Hurricanes and Tropical Meteorology*, Miami, FL, American Meteorological Society.
- Yuter, S. E., 2004: The structure and variability of tropical oceanic precipitation in the western Pacific warm pool and eastern Pacific ITCZ. *Proceedings, 3rd European Conference on Radar in Meteorology and Hydrology*. 6-10 September 2004, Visby, Sweden.
- Yuter, S. E., C. Spooner, P. Freitag, Y. Serra, and M. McPhaden, 2004: Comparison of four types of rain measurements in a tropical oceanic environment. *Abstracts, Eighth International Conference on Precipitation*. 8-11 August 2004. Vancouver, BC.
- Yuter, S. E., R. Wood, D. Horn, E. Foufoula-Georgiou, V. Vuruputur, and S. Basu, 2004: Error characterization of TRMM and GPM precipitation maps based on a probabilistic evaluation methodology. *Abstracts, Eighth International Conference on Precipitation*. 8-11 August 2004, Vancouver, Canada.
- Bidwell, S. W., W. J. Adams, I. K. Bibyk, D. F. Everett, E. A. Smith, and S. E. Yuter, 2003: Validation and error characterization for the Global Precipitation Measurement. *Preprints, 2003 International Geoscience and Remote Sensing Symposium*, Toulouse, France.
- Yuter, S. E., L. B. Nance, M. Löffler-Mang, 2003: Surface-based measurements of precipitation characteristics at air temperature near 0 deg C. *Abstracts, Pacific Northwest Weather Conf.*, March 2003, Seattle, WA.
- Yuter, S. E., L. B. Nance, M. Löffler-Mang, 2003: Surface-based in situ and vertically-pointing measurements of precipitation characteristics near and within the melting layer obtained at McKenzie Bridge, Oregon during IMPROVE II. *Preprints, 10th Conference on Mesoscale Meteorology*, Portland, OR, June 2003. American Meteorological Society.

- Yuter, S. E., and R. Wood, 2003: Evaluating uncertainties in GPM oceanic precipitation retrievals. *Preprints, 31st Conference on Radar Meteorology*, Seattle, WA, 6-12 August, American Meteorological Society.
- Bidwell, S. W., S. E. Yuter, W. J. Adams, D. F. Everett, G. M. Flaming, and E. A. Smith, 2002: Plans for Global Precipitation Measurement Ground Validation. *Preprints, 2002 International Geoscience and Remote Sensing Symposium and 24th Canadian Symposium on Remote Sensing*, June 2002, Toronto, Canada, **III**, 1370-1373.
- Bretherton, C. S., C. W. Fairall, T. Uttal, R. A. Weller, and S. E. Yuter, 2002: Overview of the EPIC 2001 Stratocumulus cruise, *Abstracts, AGU 2002 Fall Meeting*, San Francisco, CA, A21D-03.
- Comstock, K., S. Yuter, R. Wood, C. Bretherton, 2002: The life cycle and composite structure of mesoscale cellular organization, *Abstracts, AGU 2002 Fall Meeting*, San Francisco, CA, A22A-0054.
- Wood, R., K Comstock, S. Yuter, and C. Bretherton, 2002: Cloud base and surface drizzle during EPIC Stratocumulus, *Abstracts, AGU 2002 Fall Meeting*, San Francisco, CA, A22A-0074
- Yuter, S., R. Wood, and K. Comstock, 2002: Analysis of mesoscale features present in drizzling stratocumulus using satellite data and shipborne radar data, *Abstracts, AGU 2002 Fall Meeting*, San Francisco, CA, A22A-0075.
- Houze, R. A., Jr., S. Medina, and S. E. Yuter, 2001: Orographic precipitation mechanisms: New data from the Mesoscale Alpine Programme. *Preprints, International Conference on Mesoscale Meteorology and Typhoons in East Asia*, 26-28 September 2001, Taipei, Taiwan.
- Yuter, S. E., 2001: Sources of uncertainties in rainfall mapping with precipitation radar. *Abstracts, Pacific Northwest Weather Conf.*, March 2001, Seattle, WA.
- Yuter, S. E., 2001: Characteristics of oceanic-influenced precipitation in midlatitudes and the tropics. *Abstracts, Seventh International Conference on Precipitation*. 30 June–3 July 2001. Rockport, ME.
- Yuter, S. E., and R. A. Houze, Jr., 2001: Microphysical modes of precipitation growth determined by vertically-pointing radar at Locarno-Monti during MAP. *Abstracts, MAP Meeting 2001*, Schliersee, Germany.
- Yuter, S. E., 2000: Rainfall characteristics and Z-R relation for Eureka, CA. *Abstracts, Pacific Northwest Weather Conf.*, Feb 2000, Seattle, WA.
- Yuter, S. E., 1999: Radar reflectivity and rainfall in the western coastal mountains and a proposed extension of radar coverage over the Pacific and Washington/Oregon coast. *Abstracts, Pacific Northwest Weather Conf.*, Feb 1999, Seattle, WA.
- James, C., S. Brodzik, H. Edmon, R. Houze, and S. Yuter, 1998: MountainZebra: Real-time archival and 4D visualization of radar volumes over complex terrain. *Preprints, COST 75 Advanced Weather Radar Systems International Seminar*, Locarno, Switzerland, European Commission, 297-306.
- Yuter, S. E., and R. A. Houze, Jr., 1998: Practical methods of mesoscale and cloud model verification using operational radar data. *Program and Abstracts Volume, GCIP Mississippi River Climate Conference*, St. Louis, MO, 121.
- Zipser, E., S. Yuter, D. Short, S. Rutledge, R. Houze, G. Heymsfield, J. Halverson and B. Ferrier, 1998: The role of field campaigns in TRMM validation. *Preprints, Conf. on Cloud Physics*, Everett, Washington, American Meteorological Society, 300-301.
- Steiner, M., R. A. Houze, Jr., and S. E. Yuter, 1994: Three-dimensional climatological rainfall characteristics from operational radar and raingauge networks. *Abstracts, AGU Spring Meeting*.
- Steiner, M., S. E. Yuter and R. A. Houze, Jr., 1994: Prototype TRMM radar (ARMAR) validation techniques using NASA DC-8 and NOAA WP-3D airborne measurements. *Proceedings, NASA TOGA COARE Science Data Workshop II*, Albuquerque, NM. 30-33.
- Yuter, S. E., and R. A. Houze, Jr., 1993: Three-dimensional kinematic and microphysical evolution of Florida cumulonimbus. *Preprints, 26th Conf. on Radar Meteorology*, Norman, Oklahoma, American Meteorological Society, 176-179.
- Wiener, G., and S. E. Yuter, 1991: A storm cell extraction algorithm for parallel computers. *Preprints, 25th Conference on Radar Meteorology*, Paris, France, AMS, Boston, 193-196.
- Lutz, J. S., S. E. Yuter, J. W. Wilson, 1989: The nowcaster workstation for analyzing four-dimensional radar data. *Preprints, 24th Conference on Radar Meteorology*, Tallahassee, FL, Amer. Meteor. Soc. 216 - 219.