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Research Associate Professor, Department of Atmospheric & Environmental Sciences
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**Education:**

**Ph.D.**, Atmospheric Science, Columbia University, New York
**M.S**., Atmospheric Science, National Research Center for Marine Environment Forecasts (NRCMEF), Beijing, China
**B.S**., Atmospheric Science, Peking University, Beijing, China

**Professional Experiences:**

- *2024-present:* Director, NYSM, UAlbany, Albany, NY
- *2022-2024*: Program Manager, NYSM, UAlbany, Albany, NY
- *2012-present*: Research Associate Professor, Department of Atmospheric & Environmental Sciences, UAlbany, Albany, NY
- *2014-2022*: Quality Assurance Manager and Education & Outreach Director, NYSM, UAlbany, Albany, NY
- *2002-2014:* Scientist I/II/III, Earth Observing Laboratory (EOL), NCAR, Boulder, CO
- *6/2009-8/2009*: Visiting Scientist, U.K. Met Office Hadley Centre, Exeter, U.K.
- *1999-2001:* Associate Scientist, Atmospheric Technology Division, NCAR, Boulder, CO
- *1997-1998*: Postdoctoral Research Scientist, University of Colorado, Boulder, CO
- *1991-1996*: Graduate Research Assistant, NASA Goddard Institute for Space Studies (GISS), New York, NY
- *7/1990-12/1990*: Research Associate, NRCMEF/Peking University, China
- *1988-1990*: Graduate Research Assistant, NRCMEF/Peking Univ., China

**Research Interests**:

Weather and Climate observations and networks; Climate changes and variability; In-situ sounding data quality and technologies; Global Navigation Satellite Systems (GNSS) measurements and their application to weather and climate studies; Creation and analysis of climate datasets; Cloud vertical structure observations and variability.

**Professional Activities** *(selected):*

- *2024-present:* Vice-chair of Standing Committee on Measurements, Instrumentation and Traceability (SC-MINT) at World Meteorological Organization (WMO).
- *2024*-present: Member of the National Mesonet Program Advisory Board
- *2023-present*: Member of the AMS Nationwide Network of Networks (NNoN) Committee
- *2021-2023:* Member of Meteorological Data and Metadata subcommittee of the AASC Mesonet Committee
- *2019-2024:* Chair of the Expert Team on Upper Air Measurements (ET-UAM) for World Meteorological Organization (WMO)
- *2019*-2022: Member of NYSM Scientific Advisory Committee
- *2019-2022:* Member of WMO Task Team on Upper-Air Instrument Intercomparisons
- *2018-2022:* Co-chair of the GCOS/WCRP Atmospheric Observation Panel for Climate (AOPC) Working Group on GCOS Reference Upper Air Network (GRUAN)

- *2014-present*: Editor, Journal of Meteorological Research
- *2010-2018:* Co-Chair of GRUAN task team on ground-based GNSS precipitable water (GNSS-PW) observations
- *2011:* Contributing Author to Chapter 2 (Observations: Surface and Atmosphere") of the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC WGI AR5)
- *2005-2009:* Editor, Journal of Atmospheric and Oceanic Technology
- *2004-2007:* Member of AMS committee on measurements
- *2005:* Member of NRC's committee on reviewing US CCSP's first report about "Temperature trends in the lower atmosphere: steps for understanding and reconciling differences"
- *2003:* Graduate of the first "UCAR Leadership Academy"

**Refereed Journal Articles:**

81. **Wang, J**., A. Dai, N. Bain, DJ McGuinnes, B. Shrestha, C.-L. Yu (2024): Characterizing the Impacts of 2024 Total Solar Eclipse Using New York State Mesonet Data. *Geophysics Research Letter*, submitted.

80. Minder, J., co-authors, **J. Wang** (2024): Evaluating and Improving Snow in the National Water Model, using Observations from the New York State Mesonet. *Journal of Hydrometeorology*. In revision.

79. Shrestha, B., **Wang, J**., Brotzge, J. A., & Bain, N. (2023). Winter Precipitation Type from Microwave Radiometers in New York State Mesonet Profiler Network. *Weather and Forecasting*, *38*(9), 1563-1574. https://doi.org/10.1175/WAF-D-23-0035.1

78. Oliveira, A.W., **Wang, J**., Perno, C., Brotzge, J. and Verma, A., 2022. The Backyard Weather Science Curriculum: Using a Weather-Observing Network to Support Data-Intensive Issue-Based Atmospheric Inquiry in Middle and High School. Journal of Science Education and Technology, pp.1-30. https://doi.org/10.1007/s10956-022-10021-0

77. Shrestha, B., J. Brotzge and **J. Wang**, 2022: Observations and impacts of long-range transport of wildfire smoke on air quality across New York State during July 2021. *Geophysical Research Letter*, p.e2022GL100216. https://doi.org/10.1029/2022GL100216

76. Spangrude, C. E., Fowler, J. W., Moss, W. G., and **Wang, J**., 2023: Validation of the WRF-ARW Eclipse Model with Measurements from the 2019 & 2020 Total Solar Eclipses, EGUsphere, https://doi.org/10.5194/egusphere-2023-283.

75. Shrestha, B., J. Brotzge and J. Wang, 2022: **Evaluation of the New York State Mesonet Profiler Network Data**. *Atmos. Measurement Tech.*, 15, 6011–6033, https://doi.org/10.5194/amt-15-6011-2022.

74. Brotzge, J., **J. Wang**, N. Bain, S. Miller and C. Perno, 2022: Camera Network for Use in Weather Operations, Research and Education. *Bull. Amer. Meteorol. Soc.*, 103(9), pp. E2000-E2016. https://doi.org/10.1175/BAMS-D-21-0056.1.

73. Shrestha, B., Brotzge, J.A., **Wang, J.**, Bain, N., Thorncroft, C.D., Joseph, E., Freedman, J. and Perez, S., 2021. Overview and Applications of the New York State Mesonet Profiler Network. *Journal of Applied Meteorology and Climatology, 60(11)*, pp.1591-1611. https://doi.org/10.1175/JAMC-D-21-0104.1

72. **Wang, J**., J. A. Brotzge, J. Shultis and N. Bain, 2021: Enhancing Icing Detection and Characterization using the New York State Mesonet. *J. Atmos. Oceanic Technol.*, 38(9), 1499–1514. https://doi.org/10.1175/JTECH-D-20-0215.1.

71. Zhou, C., A. Dai, **J. Wang**, and D. Chen, 2021: Quantifying human-induced dynamic and thermodynamic contributions to severe cold outbreaks like November 2019 in the eastern United States. Bull. Amer. Meteorol. Soc., 102(1), S17-S23. https://doi.org/10.1175/BAMS-D-20-0171.1

70. Zhou, C., **J. Wang**, A. Dai and P. Thorne, 2021: A New Approach to Homogenize Global Twice-daily Radiosonde Temperature Data from 1958 to 2018. *J. Climate*, pp.1-64. https://doi.org/10.1175/JCLI-D-20-0352.1

69. Brotzge, J.A., **Wang, J**., Thorncroft, C.D., Joseph, E., Bain, N., Bassill, N., Farruggio, N., Freedman, J.M., Jr, K.H., Johnston, D. and Kane, E., 2020. A Technical Overview of the New York State Mesonet Standard Network. *Journal of Atmospheric and Oceanic Technology*, *37*(10), pp.1827-1845. https://doi.org/10.1175/JTECH-D-19-0220.1

68. Dirksen, R.J., Bodeker, G.E., Thorne, P.W., Merlone, A., Reale, T., **Wang, J.**, Hurst, D.F., Demoz, B.B., Gardiner, T.D., Ingleby, B. and Sommer, M., 2020. Managing the transition from Vaisala RS92 to RS41 radiosondes within the Global Climate Observing System Reference Upper-Air Network (GRUAN): a progress report. *Geoscientific Instrumentation, Methods and Data Systems*, *9*(2), pp.337-337.

67. Maloney et al., **J. Wang**, 2019: A Framework for Process-Oriented Evaluation of Climate and Weather Forecasting Models. *Bull. Amer. Meteorol. Soc*., 100, 1665-1686, https://journals.ametsoc.org/doi/10.1175/BAMS-D-18-0042.1

66. Fowler, J., **J. Wang**, D. Ross, T. Colligan and J. Godfrey, 2019: Measuring the Atmospheric Responses of 2017 Total Solar Eclipse (ARTSE2017): Results from Wyoming and New York. *Bull. Amer. Meteorol. Soc.*, 100, 1049-1060, https://doi.org/10.1175/BAMS-D-17-0331.1

65. Parsons, D. B., K. R. Haghi, K. T. Halbert, B. Elmer and **J. Wang**, 2019: The Potential Role of Atmospheric Bores in the Initiation and Maintenance of Nocturnal Convection over the Southern Great Plains. J. Atmos. Sci., 76, 43–68, https://doi.org/10.1175/JAS-D-17-0172.1

64. Diaz, J. P. F. J. Exposito, J. C. Perez, Al. Gonzalez, Y. Wang, L. Haimberger and **J. Wang**, 2019: Long-term trends in marine boundary layer properties over the Atlantic Ocean. *J. Climate*, 32, 2991-3004, DOI: 10.1175/JCLI-D-18-0219.1

63. Mears, C, S. Ho, **J. Wang**, and L. Peng, 2018: Total column water vapor, in State of the Climate in 2017. Bull. Amer. Meteorol. Soc., 99, S26-27.

62. Mears, C. A., D. K. Smith, L. Ricciardulli, **J. Wang**, H. Huelsing, and F. J. Wentz, 2018: Construction and Uncertainty Estimation of a Satellite-Derived Total Precipitable Water Data Record over the World's Oceans. *Earth and Space Science*, DOI: 10.1002/2018EA000363. http://dx.doi.org/10.1002/2018EA000363

61. Huelsing, H. K., **J. Wang**, C. Mears and J. J. Braun, 2017: Precipitable Water Characteristics during the 2013 Colorado Flood using Ground-Based GPS Measurements. *Atmos. Meas. Tech.*, 10, 4055–4066, https://doi.org/10.5194/amt-10-4055-2017.

60. Mears, C, S. Ho, **J. Wang**, H. Huelsing, and L. Peng, 2017: Total column water vapor, in State of the Climate in 2016. *Bull. Amer. Meteorol. Soc*., 98, S24-25.

59. Boylan, P., **J. Wang**, S. A. Cohn, T. Hultberg, and T. August, 2016: Identification and intercomparison of surface-based inversions over Antarctica from IASI, ERA-Interim, and Concordiasi dropsonde data. *J. Geophys. Res. Atmos.*, 121, 9089–9104, doi:10.1002/2015JD024724.

58. Brogniez, S. English, J. F. Mahfouf, A. Behrendt, W. Berg, S. Boukabara, S. A. Buehler, P. Chambon, A. Gambacorta, A. Geer, W. Ingram, E. R. Kursinski, M. Matricardi, T. Odintsova, V. H. Payne, P. Thorne, M. Tretyakov, and **J. Wang**, 2016: A review of sources of systematic errors and uncertainties in water vapor information derived from observations at 183GHz. *Atmos. Measurement Tech.*, 9, 2207-2221, doi:10.5194/amt-9-2207-2016.

**57. Wang, J.**, A. Dai, C. Mears and L. Zhang, 2016: Global water vapor trend and its diurnal asymmetry based on GPS, radiosonde and microwave satellite measurements. *J. Climate, 29, 5205-5222. DOI: 10.1175/JCLI-D-15-0485.1*

56. Bodeker 2016: G. E. Bodeker, S. Bojinski, D. Cimini, R. J. Dirksen, M. Haeffelin, J. W. Hannigan, D. F. Hurst, T. Leblanc, F. Madonna, M. Maturilli, A. C. Mikalsen, R. Philipona, T. Reale, D. J. Seidel, D. G. H. Tan, P. W. Thorne, H. Vömel, and **J. Wang**: Reference Upper-Air Observations for Climate: From Concept to Reality. *Bull. Amer. Meteor. Soc.*, 97, 123–135; doi: 10.1175/BAMS-D-14-00072.1

55. Mears, C, S. Ho, L. Peng, **J. Wang**, and H. Huelsing, 2016: Total column water vapor, in State of the Climate in 2015. *Bull. Amer. Meteorol. Soc.*, 97, S25-26.

54. Ning, T., **Wang, J.**, Elgered, G., Dick, G., Wickert, J., Bradke, M., Sommer, M., Querel, R., and Smale, D., 2016: The uncertainty of the atmospheric integrated water vapour estimated from GNSS observations, *Atmos. Meas. Tech*., 9, 79-92, doi:10.5194/amt-9-79-2016.

53. Mears, C, S. Ho, L. Peng, **J. Wang**, and H. Huelsing, 2015: Total column water vapor, in State of the Climate in 2014. *Bull. Amer. Meteorol. Soc.*, 96, S22-23, doi: http://dx.doi.org/10.1175/2015BAMSStateoftheClimate.1.

**52. Wang, J.**, K. Young, T. Hock, D. Lauritsen, D. Behringer, M. Black, P. G. Black, J. Franklin, J. Halverson, J. Molinari, L. Nguyen, T. Reale, J. Smith, B. Sun, Q. Wang and J. Zhang, 2015: A long-term, high-quality, high vertical resolution GPS dropsonde dataset for hurricane and other studies. *Bull. Amer. Meteor. Soc.*, **96**, 961–973. doi: http://dx.doi.org/10.1175/BAMS-D-13-00203.1

51. Mears, C. A., **J. Wang**, D. Smith, and F. J. Wentz (2015), Intercomparison of total precipitable water measurements made by satellite-borne microwave radiometers and ground-based GPS instruments, *J. Geophys. Res. Atmos*., 120, doi:10.1002/2014JD022694.

50. Boylan, P., **J. Wang**, S. A. Cohn, E. Fetzer, E. S. Maddy, and S. Wong (2015), Validation of AIRS version 6 temperature profiles and surface-based inversions over Antarctica using Concordiasi dropsonde data, *J. Geophys. Res. Atmos.*, 120, 992–1007, doi:10.1002/2014JD022551.

49. Yu, H., P.E. Ciesielski, **J. Wang**, H.-C. Kuo, H. Voemel and R. Dirksen, 2015: Evaluation of Humidity Correction Methods for Vaisala RS92 Tropical Sounding Data. J. Atmos. Oceanic Technol., 32, 397–411. doi: http://dx.doi.org/10.1175/JTECH-D-14-00166.1

48. Mears, C, S. Ho, L. Peng and **J. Wang**, 2014: Total column water vapor, in State of the Climate in 2013. *Bull. Amer. Meteorol. Soc.*, 95, S20-21.

47. Intrieri, J.M., G. de Boer, M.D. Shupe, J.R. Spackman, **J. Wang**, P.J. Neiman, G.A. Wick, T.F. Hock, and R.E. Hood, 2014: Global Hawk dropsonde observations of the Arctic atmosphere during the Winter Storms and Pacific Atmospheric Rivers (WISPAR) field campaign. *Atmospheric Measurement Techniques*, 7, 3917-3926, doi:10.5194/amt-7-3917-2014.

46. Bock, O., P. Willis, **J. Wang** and C. Mears, 2014: A high-quality, consistent, global, long-term (1993-2008) DORIS precipitable water dataset for climate monitoring and model verification. *J. Geophys. Res.*, 119, 7209–7230, doi:10.1002/2013JD021124..

45. Ciesielski, P. E., H. Yu, R. H. Johnson, K. Yoneyama, M. Katsumata, C. N. Long, **J. Wang** and others, 2014: Quality-controlled upper-air sounding dataset for DYNAMO/CINDY/AMIE: Development and corrections. *J. Atmos. Oceanic Technol.*, 31, 741-764.

44. Mears, C., **J. Wang**, S. Ho, and L. Zhang, 2013: Total column water vapor, in State of the Climate in 2012. *Bull. Amer. Meteorol. Soc.*, 94, S20-21.

**43. Wang, J.**, T. Hock, S. A. Cohn, C. Martin, N. Potts, T. Reale, B. Sun and F. Tilley, 2013b: Unprecedented upper air dropsonde observations over Antarctica from the 2010 Concordiasi experiment: Validation of satellite-retrieved temperature profiles. *Geophys. Res. Lett.*, 40, DOI: 10.1002/grl.50246.

42. Cohn, S. A., T. Hock, P. Cocquerez, **J. Wang** and others, 2013: Driftsondes: Providing in-situ long-duration dropsonde observations over remote regions. *Bull. Amer. Meteor. Soc.,* 94, *10.1175/BAMS-D-12-00075.1*.

**41. Wang, J.**, L. Zhang, A. Dai, F. Immler, M. Sommer and H. Voemel, 2013a: Radiation dry bias correction of Vaisala RS92 humidity data and its impacts on historical radiosonde data. *J. Atmos. Oceanic Technol.*, 30, 197-214.

40. Rabier, F., S. Cohn, P. Cocquerez, A. Hertzog, L. Avallone, T. Deshler, J. Haase, T. Hock, A. Doerenbecher, **J. Wang**, and others, 2013: The Concordiasi field experiment over Antarctica: first results from innovative atmospheric measurements, *Bull. Amer. Meteor. Soc*., 94, DOI:10.1175/BAMS-D-12-00005.1.

39. Mears, C., **J. Wang**, S. Ho, L. Zhang and X. Zhou, 2012: Total column water vapor, in State of the Climate in 2011. *Bull. Amer. Meteorol. Soc.*, 93, S25-S26.

38. Zhao, T., A. Dai, and **J. Wang**, 2012: Long-term trend of upper-air humidity over China from homogenized radiosonde data. *J. Climate*, 25, 4549-4567.

37. Ciesielski, P. E., P. T. Haertel, R. H. Johnson, **J. Wang**, and S. M. Loehrer, 2012: Developing high-quality field program sounding datasets. *Bull. Amer. Meteorol. Soc.*, 93, 325–336.

36. Mears, C., **J. Wang**, S. Ho, L. Zhang and X. Zhou, 2011: Total column water vapor, in State of the Climate in 2010. *Bull. Amer. Meteorol. Soc.*, 92 (6), S41-S42.

35, Dai, A., **J. Wang**, P. W. Thorne, D. E. Parker, L. Haimberger, and X. L. Wang, 2011: A new approach to homogenize daily radiosonde humidity data *J. Climate*, 24, 965-991.

**34. Wang, J.**, L. Zhang, P.-H. Lin, Mark Bradford, Harold Cole, Jack Fox, Terry Hock, Dean Lauritsen, Scot Loehrer, Charlie Martin, Joseph VanAndel, Chun-Hsiung Weng and Kathryn Young, 2010: Water vapor variability and comparisons in subtropical Pacific from T-PARC Driftsonde, COSMIC and reanalyses. J. Geophys. Res., 115, D21108, doi:10.1029/2010JD014494.

33. Ho, S.-P., Y.-H. Kuo, X. Zhou, D. Hunt and **J. Wang**, 2010: Global Comparisons of Radiosonde Water Vapor Measurements in the Troposphere using GPS Radio Occultation from COSMIC and ECMWF Analysis. *J. Remote Sensing*, 2, 1320-1330, doi:10.3390/rs2051320.

32. Mears, C., **J. Wang**, S. Ho, L. Zhang and X. Zhou, 2010: Total column water vapor, in State of the Climate in 2009. Arndt, D. S., M. O. Baringer, M. R. Johnson eds., *Bull. Amer. Meteorol. Soc.*, **91**, S24.

31. Ciesielski, P. E., W.-M. Chang, S.-C. Huang, R. H. Johnson, B. J.-D. Jou, W.-C. Lee, P.-H. Lin, C.-H. Liu and **J. Wang**, 2010: Quality Controlled Upper-Air Sounding Dataset for TiMREX/SoWMEX: Development and Corrections. *J. Atmos. Oceanic Technol.*, 27, No. 11, 1802-1821.

30. Mears, C., **J. Wang**, and L. Zhang, 2009: Total column water vapor, in State of the Climate in 2008. Peterson, T.C., and M. O. Baringer eds., *Bull. Amer. Meteorol. Soc.*, **90**, S24.

**29. Wang, J.**, J. Bian, W. O. Brown, H. Cole, V. Grubisic, and K. Young, 2009: Vertical air motion from T-REX radiosonde and dropsonde data. J. *Atmos. Oceanic Technol*., 26, 928-942.

28. Ciesielski P. E., R. H. Johnson, and **J. Wang**, 2009: Correction of humidity biases in Vaisala RS80-H sondes during NAME. *J. Atmos. Oceanic Technol*., 26, 1763–1780.

27. Seidel, D.J., F.H. Berger, H.J. Diamond, J. Dykema, D. Goodrich, F. Immler, W. Murray, T. Peterson, D. Sisterson, M. Sommer, P. Thorne, H. Vömel, **J. Wang**, 2009: Reference Upper-Air Observations for Climate: Rationale, Progress and Plans. *Bull. Amer. Meteorol. Soc.*, **90**, 361-369.

**26. Wang, J.**, and L. Zhang, 2009: Climate applications of a global, 2-hourly atmospheric precipitable water dataset from IGS ground-based GPS measurements. *J. of Geodesy*, **83**, 209-217.

**25. Wang, J.** and L. Zhang, 2008: Systematic errors in global radiosonde precipitable water data from comparisons with ground-based GPS measurements. *J. Climate*, **21**, 2218-2238.

**24. Wang, J**., L. Zhang, A. Dai, T. Van Hove, J. Van Baelen, 2007: A near-global, 2-hourly data set of atmospheric precipitable water from ground-based GPS measurements. *Journal of Geophysical Research*, **112**, D11107. 10.1029/2006JD007529.

23. Poulos, G. S., **J. Wang**, D. K. Lauritsen, and H. L. Cole, 2007: A note on the use of targeted dropwindsondes in complex terrain. *J. Atmos. Oceanic Technol*, **24**, 1489-1494. 10.1175/JTECH2065.1.

22. Behrendt, A., V. Wufmeyer, P. D. Girolamo, C. Kiemle, H.-S. Bauer, T. Schaberl, D. Summa, D. N. Whiteman, B. B. Demoz, E. V. Browell, S. Ismail, R. Ferrare, S. Kooi, G. Ehret, **J. Wang**, 2007: Intercomparison of water vapor data measured with lidar during IHOP_2002, Part 1: Airborne to ground-based lidar systems and comparisons with chilled-mirror hygrometer radiosondes. *Journal of Atmospheric and Oceanic Technology*, **24**, 3-21. 10.1175/JTECH1924.1.

21. Whiteman, D. N., B. Demoz, P. Di Girolamo, J. Comer, I. Veselovskii, K. Evans, Z. Wang, D. Sabatino, G. Schwemmer, B. Gentry, R-F. Lin, A. Behrendt, V. Wulfmeyer, E. Browell, R. Ferrare, S. Ismail, **J. Wang**, 2006: Raman Water Vapor Lidar Measurements During the International H2O Project. II. Case Studies. *J. Atmos. Oceanic Technol.*, 23, 170-183.

**20. Wang, J.**, L. Zhang, and A. Dai, 2005: Global estimates of water-vapor-weighted mean temperature of the atmosphere for GPS applications. *J. Geophys. Res.*, 110, D21101, doi:10.1029/2005JD006215.

19. Gochis, D., B. Anderson, A. Barros, A. Gettelman, **J. Wang**, and other co-authors, 2005: The water cycle across scales. *Bull. Amer. Meteor. Soc.*, 86, 1743-1746.

18. Rossow, W. B., Y. Zhang and **J. Wang**, 2005: A statistical model of cloud vertical structure based on reconciling cloud layer amounts inferred from satellites and radiosonde humidity profiles. *J. Climate*, 18, 3587-3605.

17. Seidel, D. J., M. Free and **J. Wang**, 2005: The diurnal cycle of temperature in the free atmosphere estimated from radiosondes. *J. Geophys. Res.*, 110, D09102, doi:10.1029/2004JD005526.

16. Kuo, Y.-H., W. S. Schreiner, **J. Wang**, D. L. Rossiter and Y. Zhang, 2005: Comparison of GPS radio occultation soundings with radiosondes. *Geophys. Res. Lett.*, 32, L05817, doi: 10.1029/2004GL021443.

**15. Wang, J.**, 2005: Evaluation of performance of the dropsonde humidity sensor using data from DYCOMS-II and IHOP_2002. *J. Atmos. Oceanic Technol.*, 22, No. 3, 247-257.

14. Roy, B., J. B. Halverson and **J. Wang**, 2004: The influence of radiosonde 'age' on TRMM field campaign soundings humidity correction. J. Atmos. Oceanic Technol., 21, 470-480.

13. Weckwerth, T. M, D. B. Parsons, S. E. Koch, J. A. Moore, M. A. LeMone, B. B. Demoz, C. Flamant, B. Geerts, **J. Wang** and W. F. Feltz, 2004: An overview of the international H20 project (IHOP_2002) and some preliminary highlights. *Bull. Amer. Meteor. Soc.*, 85, 253-277.

**12. Wang, J**., D. J. Carlson, D. B. Parsons, T. F. Hock, D. Lauritsen, H. L. Cole, K. Beierle and N. Chamberlain, 2003: Performance of operational radiosonde humidity sensors in direct comparison with a chilled mirror dew-point hygrometer and its climate implication. *Geophy. Res. Lett.*, 30, 10.1029/2003GL016985

11. Ciesielski, P. E., R. H. Johnson, P. T. Haertel and **J. Wang**, 2003: Corrected TOGA COARE sounding humidity data: Impact on convection and climate. *J. Climate*, **18**, 2370-2384.

**10. Wang, J.**, H. L. Cole, D. J. Carlson, E. R. Miller, K. Beierle, A. Paukkunen, and T. K. Laine, 2002: Corrections of humidity measurement errors from the Vaisala RS80 radiosonde – Application to TOGA_COARE data. *J. Atmos. Oceanic Technol.*, **19**, *981-1002.*

9. Dai, A., **J. Wang**, R. H. Ware, and T. M. Van Hove, 2002: Diurnal variation in atmospheric water vapor over North America and its implications for sampling errors in radiosonde humidity. *J. Geophys. Res.*, 107(D10), 10.1029/2001JD000642.

**8. Wang, J.**, H. L. Cole, and D. J. Carlson, 2001: Water vapor variability in the tropical western Pacific from a 20-year radiosonde data. *Advances in Atmos. Sci*., **18**, 752-766.

**7. Wang, J.,** W. B. Rossow and Y.-C. Zhang, 2000: Cloud vertical structure and its variations from a 20-year global rawinsonde dataset. *J. Climate,* **13**, 3041-3056.

6. Dai, A. and **J. Wang**, 1999: Diurnal and semidiurnal tides in global surface pressure fields. *J. Atmos. Sci*., **56**, 3874-3891.

**5. Wang, J.**, W. B. Rossow, T. Uttal, and M. Rozendaal, 1999: Variability of cloud vertical structure during ASTEX observed from a combination of rawinsonde, radar, ceilometer and satellite. *Monthly Weather Review*, **127**, 2484-2502.

**4. Wang, J.** and W.B. Rossow, 1998: Effects of cloud vertical structure on atmospheric circulations in the GISS GCM. *J. Climate,* **11**, 3010-3029.

**3. Wang, J.** and W.B. Rossow, 1995: Determination of cloud vertical structure from upper-air observations. *J. Appl. Meteor*., **34**, 2243-2258.

2. Poore, K.D., **J. Wang** and W.B. Rossow, 1995: Cloud layer thicknesses from a combination of surface and upper-air observations. *J. Climate*, **8**, 550-568.

1. Zhao, B., **J. Wang** and Y. Zhu, 1993: Meteorological satellite remote sensing of tropopause height. *Chinese Science Bulletin*, **38**, 317-321.