LULIN XUE

CURRICULUM VITAE

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Contents: Edu/Exp/Pro assoc/Papers/Patents/Invited talks/Services/Conf abs

EDUCATION

SEPTEMBER 2009
Ph.D. in Meteorology Saint Louis University

MAY 2006
M.S. in Meteorology Saint Louis University

JUNE 2002
B.S. in Atmospheric Physics University of Science and Technology in China

EXPERIENCE

MARCH 2023 – PRESENT
Project Scientist III Research Applications Laboratory (RAL), the National Center for Atmospheric Research (NCAR)

JUNE 2016 – FEBRUARY 2023
Project Scientist II RAL, NCAR

MAY 2012 – MAY 2016
Project Scientist I RAL, NCAR

OCTOBER 2009 – APRIL 2012
Advanced Study Program (ASP) Postdoctoral Fellow ASP and RAL, NCAR

MARCH 2008 – SEPTEMBER 2009
Teaching Assistant Department of Earth and Atmospheric Science, Saint Louis University

SEPTEMBER 2007 – FEBRUARY 2008
ASP visiting graduate student ASP and the Institute for Integrative & Multidisciplinary Earth Studies, NCAR

MAY 2004 – FEBRUARY 2008
Research Assistant Department of Earth and Atmospheric Science, Saint Louis University

PROFESSIONAL ASSOCIATIONS

JANUARY 2006 – PRESENT **Member of American Meteorology Society**

JANUARY 2006 – PRESENT **Member of American Geophysical Union**

JANUARY 2006 – SEPTEMBER 2009 **Member of AMS local chapter at Saint Louis University**

PEER-REVIEWED PUBLICATIONS (* as the corresponding author)

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ **Papers in review** ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

1. Qi, Z., H. Cheng, Q. Yu, M.S. Bukovsky, **L. Xue**, V.L. Jin, L. Ma, R.D. Harmel, X. Chen, S. Ji, L. Miao, S. Feng, 2023: Assessing impacts of climate change and long-term conservation practices on greenhouse gas emissions and crop growth in continuous corn systems. *Science of the Total Environment*, submitted.
2. Francina Dominguez; Roy Rasmussen; Changhai Liu; Kyoko Ikeda; Andreas Prein; Adam Varble; Paola Arias; Julio Betancourt; Maria Laura Bettolli; Patrick Callaghan; Leila M. V. Carvalho; Christopher L. Castro; Fei Chen; Divyansh Chug; Kwok Pan Chun; Aiguo Dai; Luminita Danaila; Rosmeri Porfírio da Rocha; Ernani de Lima Nascimento; Erin Dougherty; Jimy Dudhia; Trude Eidhammer; Zhe Feng; Lluís Fita; Rong Fu; Julian Giles; Harriet Gilmour; Kate Halladay; Yongjie Huang; Angela Maylee Iza Wong; Miguel Ángel Lagos-Zúñiga; Charles Jones; Jorge Llamocca; Marta Llopart; J. Alejandro Martinez; J. Carlos Martinez; Justin R. Minder; Monica Morrison; Zachary L. Moon; Ye Mu; Richard Neale; Kelly M. Núñez Ocasio; Sujan Pal; Erin Potter; German Poveda; Franciano Puhales; Kristen Rasmussen; Amanda Rehbein; Rosimar Rios-Berrios; Christoforus Bayu Risanto; Alan Rosales; Lucia Scaff; Anton Seimon; Marcelo Somos-Valenzuela; Yang Tian; Peter Van Oevelen; Daniel Veloso; **Lulin Xue**; Timothy Schneider, 2023: Advancing South American Hydroclimate Science Through Multi-Decadal Convection-Permitting Modeling. *Bull. Amer. Meteor. Soc.*, submitted.
3. Lin Deng; **Lulin Xue***; Wei Huang; Wanchen Wu; Greg Thompson; Wenhua Gao; Noemi Sarkadi; Istvan Geresdi, 2023: A Numerical Investigation of Aerosol Effect on Cloud Microphysics in an Idealized Tropical Cyclone Using the WRF Piggybacking Framework. *Atmos. Res.,* submitted.
4. Troy Justin Zaremba; Robert M. Rauber; Bart Geerts; Jeffrey French; Sarah Tessendorf; **Lulin Xue**; Katja Friedrich; Courtney Weeks; Roy M. Rasmussen; Melvin L. Kunkel; Derek R. Blestrud, 2023: Vertical Motions in Orographic Cloud Systems over the Payette River Basin. Part 4: Controls on Supercooled Liquid Water Content and Cloud Droplet Number Concentrations. *J. Appl. Meteor. Climatol.,* in review.
5. Warms, M., K. Friedrich, **L. Xue**, S. Tessendorf, K. Ikeda, 2023. Drivers of Snowfall Accumulation in the Central Idaho Mountains using Long-Term High-Resolution WRF Simulations. *J. Appl. Meteor. Climatol.,* in review.
6. Lackner, C.P., B. Geerts, Y. Wang, T.W. Juliano, **L. Xue**, B. Kosović, and D.D. Turner, 2023: Observations of the vertical cloud structure of three polar lows during COMBLE. *QJRM*, in review.
7. Tessendorf, S.A., K. Ikeda, R. Rasmussen, J. French, **L. Xue**, R. Rauber, A. Korolev, L. Xue, D.R. Blestrud, N. Dawson, M. Meadows, M.L. Kunkel, and S. Parkinson, 2023: Characteristics of generating cells in wintertime orographic clouds. *J. Atmos. Sci*., in review.
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8. Yin, C., S. Shima, **L. Xue**, and C. Lu, 2023: Simulation of marine stratocumulus using the super-droplet method: Numerical convergence and comparison to a double-moment bulk scheme. *Geoscientific Model Development*, in review.

9. Chen, S., **L. Xue**, S.A. Tessendorf, T. Chubb, A. Peace, L. Ackermann, A. Gevorgyan, Y. Huang, S. Siems, R. Rasmussen, S. Kenyon, and J. Speirs, 2023: Simulating Wintertime Orographic Cloud Seeding over the Snowy Mountains of Australia. *J. Appl. Meteor. Climatol.,* in review.

10. Li, W., D.F. D'Amico, L. Bernardet, **L. Xue**, J. Dudhia, H. Shin, G. Firl, J. Henderson, M. Harrold, L. Nance, and M. Ek, 2022: Demonstration of Hierarchical System Development to Inform Model Physics Development: An Example from An ARM SGP Case on June 11 2016. *Mon. Weather Rev*., in review.

11. Lee, J.A., W.W. Grabowski, S.A. Tessendorf, **L. Xue**, Y. Wehbe, S. Chen, C. Liu, and R.M. Rasmussen, 2022: Investigation of the Terrain Impacts on Convective Initiation over the Al Hajar Mountains. *Mon. Weather Rev*., in review.

12. Jiang, Q., R. Lou, C. Madramootoo, Z. Qi, **L. Xue**, M.S. Bukovsky, and Y. He, 2022: Potential Contribution of Water Management Practices under Intensive Crop Production to Climate-Change-Associated Global Warming. *Global Change Biology*, in review.

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ **Published papers** ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

1. Lackner, C.P., Geerts, B., Juliano, T.W., **Xue, L.** and Kosović, B., 2022. Vertical structure of clouds and precipitation during Arctic cold-air outbreaks and warm-air intrusions: observations from COMBLE. *J. Geophys. Res.,* accepted.

2. Rasmussen, R., et al., 2022: CONUS404: The NCAR-USGS 4-km long-term regional hydroclimate reanalysis over the CONUS. *Bull. Amer. Meteor. Soc.*, accepted.

3. Chen, S., **L. Xue**, S.A. Tessendorf, K. Ikeda, C. Weeks, R.M. Rasmussen, M. Kunkel, D. Blestrud, S. Parkinson, M. Meadows, and N. Dawson, 2022: Mixed-phase Direct Numerical Simulation: Ice Growth in Cloud-Top Generating Cells. *Atmos. Chem. Phys.*, accepted.

4. Fortini, L.B., L.R. Kaiser, K. Perkins, **L. Xue**, and Y. Wang, 2022: Estimating the impact of climate and vegetation changes on runoff risk across the Hawaiian landscape. *Conservation*, accepted.

5. Vo, T., L. Hu, **L. Xue**, Q. Li, and S. Chen, 2023: How do Cities Modify Local Cloud Patterns? *Proc. Natl. Acad. Sci.,* in press.

6. Tang, L., W. Gao, **L. Xue**, G. Zhang, and J. Guo, 2023: Climatological Characteristics of Hydrometeors in Precipitating Clouds over Central and Eastern China and Their Relationship with Precipitation Based on ERA5 Reanalysis. *J. Appl. Meteor. Climatol.,* accepted.

7. He, H., X. Liu, **L. Xue**, and Q. Gao, 2023: Mesoscale Numerical Simulation on the Precipitation Enhancement of Stratiform Clouds with Embedded Convection. *Atmos. Res.,* accepted.

8. Gopalakrishnan, D., S. Taraphdar, O.M. Pauluis, **L. Xue**, R.S. Ajayamohan, N. Al Shamsi S. Chen, J.A. Lee, W.W. Grabowski, C. Liu, S.A. Tessendorf, and R. Rasmussen, 2023: Anatomy of a summertime convective event over the Arabian region. *Mon. Weather Rev*., accepted.

9. Mazzetti, T., **L. Xue**, and B. Geerts, 2022: A numerical evaluation of the impact of operational ground-based glaciogenic cloud seeding on precipitation over the Wind River Range, Wyoming. *J. Appl. Meteor. Climatol.,* accepted.
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10. Gou, Y., H. Chen, and **L. Xue**, 2022: Microphysical Characteristics of Super Typhoon Lekima (2019) and Its Impacts on Polarimetric Radar Remote Sensing of Precipitation. *Atmos. Chem. Phys.*, accepted.

11. Geerts, B., C. Grasmick, R.M. Rauber, T.J. Zaremba, **L. Xue**, and K. Friedrich, 2022: Vertical motions forced by small-scale terrain and cloud microphysical response in extratropical precipitation systems. *J. Atmos. Sci.*, DOI: 10.1175/JAS-D-22-0161.1.

12. Wu, Q., Y. He, C.A. Madramootoo, Z. Qi, **L. Xue**, M. Bukovsky, and Q. Jiang, 2023: Optimizing strategies to reduce the future carbon footprint of maize under changing climate. *Resour. Conserv. Recycl.*, https://doi.org/10.1016/j.resconrec.2022.106714

13. Fortini, L.B., L.R. Kaiser, **L. Xue**, and Y. Wang, 2022: Bioclimatic variables dataset for baseline and future climate scenarios for climate change studies in Hawai'i. *Data in Brief*, https://doi.org/10.1016/j.dib.2022.108572.

14. Heimes, K., T. J. Zaremba, R. M. Rauber, S. A. Tessendorf, **L. Xue**, K. Ideka, B. Geerts, J. R. French, K. Friedrich, R. M. Rasmussen, M. L. Kunkel, and D. R. Blestrud, 2022: An Evaluation of the Impact of Transient Updrafts on Targeting During Orographic Cloud Seeding Operations. *J. Appl. Meteor. Climatol.,* https://doi.org/10.1175/JAMC-D-21-0230.1.

15. Sarkadi, N., **L. Xue***, I. Geresdi, W.W. Grabowski, Z.J. Lebo, H. Morrison, B. White, J. Fan, and J. Dudhia, 2022: Microphysical piggybacking in the Weather Research and Forecasting Model. *J. Adv. Model. Earth Sy.*, https://doi.org/10.1029/2021MS002890.

16. Zaremba, T. J., R. M. Rauber, S. Haimov, B. Geerts, J. R. French, C. Grasmick, K. Heimes, S. A. Tessendorf, K. Friedrich, **L. Xue**, R. M. Rasmussen, M. L. Kunkel, and D. R. Blestrud, 2022: Vertical Motions in Orographic Cloud Systems over the Payette River Basin. Part 1: Recovery of Vertical Motions and their Uncertainty from Airborne Doppler Radial Velocity Measurements. *J. Appl. Meteor. Climatol.,* https://doi.org/10.1175/JAMC-D-21-0228.1.

17. Zaremba, T. J., K. Heimes, R. M. Rauber, B. Geerts, J. R. French, C. Grasmick, S. A. Tessendorf, **L. Xue**, K. Friedrich, R. M. Rasmussen, M. L. Kunkel, and D. R. Blestrud, 2022: Vertical Motions in Orographic Cloud Systems over the Payette River Basin. Part 2: Fixed and Transient Updrafts and their Relationship to Forcing. *J. Appl. Meteor. Climatol.,* https://doi.org/10.1175/JAMC-D-21-0229.1.

18. Munoz-Esparza, D., J. Sauer, A. Jensen, **L. Xue**, and W. W. Grabowski, 2022: Moist dynamics and microphysics within the FastEddy(R) large-eddy simulation model, *J. Adv. Model. Earth Sy.*, http://doi.org/10.1029/2021MS002904.

19. Chu, Y., Z. Wang, **L. Xue**, M. Deng, G. Lin, H. Xie, H.H. Shin, W. Li, G. Firl, D. D'Amico, D. Liu, and Y. Wang, 2022: Characterizing Warm Atmospheric Boundary Layer Over Land by Combining Raman and Doppler Lidar Measurements. *Optics Express*, https://doi.org/10.1364/OE.451728.

20. **Xue, L.***, S. Bera, S. Chen, H. Choudhary, S. Dixit, W. W. Grabowski, S. Jayakumar, S. Krueger, G. Kulkarni, S. Lasher-Trapp, H. Mallinson, T. Prahakaran, and S. Shima, 2022: Progress and challenges in modeling dynamics-microphysics interactions: from the Pi chamber to Monsoon convection. *Bull. Amer. Meteor. Soc.*, https://doi.org/10.1175/BAMS-D-22-0018.1.

21. Geerts, B., S.E. Giangrande, G.M. McFarquhar, **L. Xue**, and others, 2022: The COMBLE campaign: a study of marine boundary-layer clouds in Arctic cold-air outbreaks. *Bull. Amer. Meteor. Soc.*, https://doi.org/10.1175/BAMS-D-21-0044.1.

22. Wang, Z., T.Q. Zhang, C.S. Tan, **L. Xue**, M. Bukovsky, and Z.M. Qi, 2022: Tillage and broadcast manure application effects on soil dissolved reactive phosphorous loss under climate change. *Nutr Cycl Agroecosyst,* DOI: 10.1007/s10705-022-10192-7.

23. **Xue, L.***, and others, 2022: Comparison between observed and simulated AgI seeding impacts in a well-observed case from the SNOWIE field program. *J. Appl. Meteor. Climatol.,* https://doi.org/10.1175/JAMC-D-21-0103.1.

24. Liu, X., **L. Xue***, B. Chen, and Y. Zhang, 2021: Spatio-temporal variabilities of raindrop size distributions in Chongqing observed by a dense network of distrometers. *J. Geophys. Res.,* https://doi.org/10.1029/2021JD035172.

25. Geresdi, I., **L. Xue***, S. Chen, Y. Wehbe, R. Bruintjes, J.A. Lee, R.M. Rasmussen, W.W. Grabowski, N. Sarkadi, S.A. Tessendorf, 2021: Impact of hygroscopic seeding on the initiation of precipitation formation: results of a parcel model with novel hybrid microphysics approaches. *Atmos. Chem. Phys.,* https://doi.org/10.5194/acp-21-16143-2021.

26. Chen, S., **L. Xue**, and M.K Yao, 2021: Hygroscopic seeding effects of giant aerosol particles on the droplet size distribution simulated by Lagrangian particle-based direct numerical simulation. *Geophys. Res. Lett.*, https://doi.org/10.1029/2021GL094621.

27. Shin, H. H., **L. Xue**, W. Li, G. Firl, D. F. D'Amico, D. Muñoz-Esparza, M. B. Ek, Y. Chu, Z. Wang, W. I. Gustafson, and A. M. Vogelmann, 2021: Role of large-scale forcing in the development of shallow convective clouds revealed from LASSO large-eddy simulations. *J. Geophys. Res.*, 126, e2021JD035208. https://doi.org/10.1029/2021JD035208.

28. Wu, Y., J. Sun, Z. Ying, **L. Xue**, D. Chen, and W. Lin, 2021: Effects of local-scale orography and urban heat island on the initiation of a record-breaking rainfall event. *J. Geophys. Res.* DOI: 10.1029/2021JD034839.

29. Wehbe, Y., S.A. Tessendorf, C. Weeks, R. Bruintjes, **L. Xue**, R. Rasmussen, P. Lawson, S. Woods, and Marouane Temimi, 2021: Analysis of aerosol-cloud interactions and their implications for precipitation formation using aircraft observations over the United Arab Emirates. *Atmos. Chem. Phys.*, https://doi.org/10.5194/acp-21-12543-2021.

30. Gao, W., **L. Xue**, L. Liu, C. Lu, Y. Yun, W. Zhou, 2021: The fraction of warm rain in a pre-summer rainfall event over South China. *Atmos. Res.,* https://doi.org/10.1016/j.atmosres.2021.105792.

31. Mazzetti, T., B. Geerts, **L. Xue**, and S. Tessendorf, 2021: Historical and Future Potential for Ground-Based Orographic Glaciogenic Cloud Seeding in the Interior Western United States. *J. Appl. Meteor. Climatol.,* DOI: 10.1175/JAMC-D-20-0288.1.

32. Freiderich, K., J.R. French, S.A. Tessendorf, M. Hatt, C. Weeks, R.M. Rauber, B. Geerts, **L. Xue**, R.M. Rasmussen, D.R. Blestrud, M.L. Kunkel, N. Dawson, and S. Parkinson, 2021: Microphysical characteristics and evolution of seeded orographic clouds. *J. Appl. Meteor. Climatol.,* https://doi.org/10.1175/JAMC-D-20-0206.1.

33. Deng, Lin, Y. Zhao, W. Gao, **L. Xue**, and Y. Duan, 2021: Intensity and microphysical properties surrounding the rapid intensification in landfalling Super Typhoons over China during the summer and autumn seasons. *International Journal of Climatology*, DOI: 10.1002/joc.7200.

34. Taraphdar, S., O. Pauluis, **L. Xue**, C. Liu, R. S. Ajayamohan, R. M. Rasmussen, S. A. Tessendorf, X. Jing, S. Chen, and W. W. Grabowski, 2021: WRF gray zone simulations of precipitation over the

Middle East and UAE: Impacts of physics parameterizations and resolution. *J. Geophys. Res.*, https://doi.org/10.1029/2021JD034648.

35. Tessendorf, S.A., S. Chen, C. Weeks, R. Bruintjes. R. Rasmussen, and **L. Xue**, 2021: The influence of hygroscopic flare seeding on the droplet size distribution in southeast Queensland. *J. Geophys. Res.* DOI: 10.1029/2020JD033771.

36. Wang, Z., T.Q. Zhang, C.S. Tan, **L. Xue**, M. Bukovsky, and Z.M. Qi, 2021: Modeling impacts of climate change on crop yield and phosphorus loss in a subsurface drained field of Lake Erie region. *Agricultural Systems,* DOI: 10.1016/j.agsy.2021.103110

37. Newman, A.J., A.J. Monaghan, M.P. Clark, K. Ikeda, **L. Xue**, E. Gutmann, and J.R. Arnold, 2021: Mesoscale water cycle changes in Alaska portrayed by a high-resolution regional climate simulation. *Climatic Change,* https://doi.org/10.1007/s10584-021-02956-x.

38. **Xue, L.***, Y. Wang, A.J. Newman, K. Ikeda, R.M. Rasmussen, T.W. Giambelluca, R.J. Longman, A.J. Monaghan, M.P. Clark, and J.R. Arnold, 2020: How will rainfall change over Hawai'i in the future? High resolution regional climate simulation of the Hawaiian Islands. *Bulletin of Atmospheric Science and Technology*, doi:10.1007/s42865-020-00022-5.

39. Francis, D., N. Alshamsi, N. Nelli, J. Cuesta, J-P. Chaboureau, M. Temimi, O. Pauluis, and **L. Xue**, 2020: Summertime dust storms over the Arabian Peninsula and impacts on radiation, circulation, cloud development and rain. *Atmospheric Research*, DOI: 10.1016/j.atmosres.2020.105364.

40. Xu, L., **L. Xue***, and I. Geresdi, 2020: How does the melting impact charge separation in squall line? A bin microphysics simulation study. *Geophys. Res. Lett.*, https://doi.org/10.1029/2020GL090840.

41. Jiang, Q., Z. Qi, F. Tang, **L. Xue**, and M. Bukovsky, 2020: Modeling climate change impact on streamflow as affected by snowmelt in Nicolet River Watershed, Quebec. *Computers and Electronics in Agriculture*, https://doi.org/10.1016/j.compag.2020.105756.

42. Geresdi, I., **L. Xue**, N. Sarkadi, R. Rasmussen, 2020: Evaluation of Orographic Cloud Seeding Using Bin Microphysics Scheme. Three –dimensional simulation of real cases. *J. Appl. Meteor. Climatol.,* 59 (9): 1537–1555. https://doi.org/10.1175/JAMC-D-19-0278.1.

43. Chen, S., **L. Xue**, M.K. Yau, 2020: Impact of aerosols and turbulence on cloud droplet growth: an in-cloud seeding case study using a parcel–DNS (direct numerical simulation) approach. *Atmos. Chem. Phys.*, 20, 10111–10124, 2020 https://doi.org/10.5194/acp-20-10111-2020.

44. Jing, X., **L. Xue***, Y. Yin, D. Steinhoff, A. Monaghan, D. Yates, J. Yang, C. Liu, R. Rasmussen, S. Taraphdar, and O. Pauluis, 2020: Convection-permitting regional climate simulations in the Arabian Gulf Region using WRF driven by bias-corrected GCM data. *Journal of Climate*, https://doi.org/10.1175/JCLI-D-20-0155.1.

45. Tessendorf, S.A., K. Ikeda, C. Weeks, R. Rasmussen, J. Wolff, and **L. Xue**, 2020: An assessment of winter orographic precipitation and cloud-seeding potential in Wyoming. *J. Appl. Meteor. Climatol.,* https://doi.org/10.1175/JAMC-D-19-0219.1.

46. Morrison, H., M. van Lier-Walqui, A.M. Fridlind, W.W. Grabowski, J.Y. Harrington, C. Hoose, A. Korolev, M.R. Kumjian, J.A. Milbrandt, H. Pawlowska, D.J. Posselt, O.P. Prat, K.J. Reimel, S. Shima, B. van Diedenhoven, and **L. Xue**, 2020: Confronting the challenge of modeling cloud and precipitation microphysics. *J. Adv. Model. Earth Sy.*, https://doi.org/10.1029/2019MS001689.

47. Shaw, R.A., W. Cantrell, S. Chen, P. Chuang, N. Donahue, G. Feingold, P. Kollias, S. Krueger, A. Korolev, S. Kreidenweis, J.P. Mellado, D. Niedermeier, and **L. Xue**, 2020: Cloud-aerosol-turbulence interactions: Science priorities and concepts for a large-scale laboratory facility. *Bull. Amer. Meteor. Soc.*, https://doi.org/10.1175/BAMS-D-20-0009.1.

48. Huang, J., Y. Wang, **L. Xue**, L. Zhang, H. Li, 2020: Comparison of Three Microphysics Parameterization Schemes in the WRF Model for an Extreme Rainfall Event in the Coastal Metropolitan City of Guangzhou, China. *Atmos. Res.,* https://doi.org/10.1016/j.atmosres.2020.104939.

49. Friedrich, K., K. Ikeda, S.A. Tessendorf, J. French, R.M. Robert, B. Geerts, **L. Xue**, R.M. Rasmussen, D.R. Blestrud, M.L. Kunkel, N. Dawson, and S. Parkinson, 2020: Making snow - Quantifying snowfall from orographic cloud seeding. *Proc. Natl. Acad. Sci.* https://www.pnas.org/content/early/2020/02/19/1917204117.

50. Jiang, Q., Z. Qi, **L. Xue**, M. Bukovski, C.A. Madramootoo, and W. Smith, 2020: Assessing climate change impacts on greenhouse gas emissions, water quality and crop production in subsurface drained field. *Science of the Total Environment*, https://doi.org/10.1016/j.scitotenv.2019.135969

51. Chen, Q., Y. Yin, H. Jiang, Z. Chu, **L. Xue**, R. Shi, X. Zhang, and J. Chen, 2019: The Roles of Mineral Dust as Cloud Condensation Nuclei and Ice Nuclei During the Evolution of a Hail Storm. *J. Geophys. Res.*, https://doi.org/10.1029/2019JD031403.

52. Lee, J.A., P. Doubrawa, **L. Xue***, A.J. Newman, C. Draxl, and G. Scott, 2019: Wind Resource Assessment for Alaska's O shore Regions: Validation of a 14-Year High-Resolution WRF Data Set. Energies, **12(14)**, 2780; https://doi.org/10.3390/en12142780.

53. Rauber, R.M., B. Geerts, **L. Xue**, J. French, K. Friedrich, R.M. Rasmussen, S.A. Tessendorf, D.R. Blestrud, M.L. Kunkel, and S. Parkinson, 2019: Wintertime Orographic Cloud Seeding-A Review. *J. Appl. Meteor. Climatol.,* https://doi.org/10.1175/JAMC-D-18-0341.1.

54. Tessendorf, S. A., J. R. French, K. Friedrich, B. Geerts, R. M. Rauber, R. M. Rasmussen, **L. Xue**, K. Ikeda, D. R. Blestrud, M. L. Kunkel, S. Parkinson, J. R. Snider, J. Aikins, S. Faber, A. Majewski, C. Grasmick, A. Janiszeski, A. Springer, C. Weeks, D. J. Serke, and R. Bruintjes, 2019： A transformational approach to winter orographic weather modification research: The SNOWIE Project. *Bull. Amer. Meteor. Soc.*, **100 (1)**, 71-92.

55. Rasmussen, R. R., S. A. Tessendorf, **L. Xue**, C. Weeks, K. Ikeda, S. Landolt, D. Breed, T. Deshler, B. Lawrence, 2018: Evaluation of the Wyoming Weather Modification Pilot Project using two approaches: Traditional Statistics and Ensemble Modeling. *J. Appl. Meteor. Climatol.,* 57 (11), 2639-2660.

56. **Xue, L.***, B. Geerts, X. Guo, I. Geresdi, and S. Siems, 2018: Experimental, Observational, and Numerical Research on Intentional and Inadvertent Weather Modification. *Advances in Meteorology*, https://doi.org/10.1155/2018/1613756.

57. Chen, S., M. K. Yau, P. Bartello, **L. Xue**, 2018: Bridging the condensation-collision size gap: a direct numerical simulation of continuous droplet growth in turbulent cloud. *Atmos. Chem. Phys.*, **18**, 7251 - 7262.

58. Monaghan, A., A. Newman, M. Clark, **L. Xue** and R. Rasmussen, 2018: High-resolution WRF regional climate simulation of Alaska: Properties of extreme precipitation events. *J. Appl. Meteor. Climatol.,* **57**, 709 - 731.

59. Chu, X., **L. Xue**, B. Geerts and B. Kosovic, 2018: The Impact of Boundary Layer Turbulence on Snow Growth and Precipitation: Idealized Large Eddy Simulations. *Atmos. Res.*, **204**, 54 - 66.

60. French J. R., K. Friedrich, S. A. Tessendorf, R. M. Rauber, B. Geerts, R. M. Rasmussen, **L. Xue**, M. L. Kunkel, D. R. Blestrud, 2018: Precipitation formation from orographic cloud seeding. *Proc. Natl. Acad. Sci.*, https://doi.org/10.1073/pnas.1716995115

61. **Xue, L.*,** J. Fan, Z. Lebo, W. Wu, H. Morrison, W. W. Grabowski, X. Chu, I. Geresdi, X. Lou, K. North, R. Stenz, Y. Gao, A. Bansemer, A. Heymsfield, G. McFarquhar and R. Rasmussen, 2017: Idealized Simulations of a Squall Line from the MC3E Field Campaign Applying Three Bin Microphysics Schemes: Dynamic and Thermodynamic Structure. *Mon. Weather Rev*., **145**, 4789 - 4812.

62. Keeler, J. M., B. F. Jewett, R. M. Rauber, G. M. McFarquhar, R. M. Rasmussen, **L. Xue**, C. Liu, and G. Thompson, 2017: Dynamics of cloud-top generating cells in winter cyclones. Part III: Shear and convective organization. *J. Atmos. Sci.*, **74**, 2879 - 2897.

63. **Xue, L.***, R. Edwards, A. Huggins, X. Lou, R. Rasmussen, S. A. Tessendorf, P. Holbrook, D. Blestrud, M. Kunkel, B. Glenn and S. Parkinson, 2017: WRF Large-Eddy simulations of chemical tracer deposition and seeding effect over complex terrain from ground- and aircraft-based AgI generators. *Atmos. Res.,* **190**, 89 - 103.

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66. Chu, X., B. Geerts, **L. Xue**, B. Pokharel, 2017: A case study of cloud radar observations and Large Eddy Simulations of a shallow stratiform orographic cloud, and the impact of glaciogenic seeding. *J. Appl. Meteor. Climatol.,* **56**, 1285 - 1304.

67. Chu, X., B. Geerts, **L. Xue**, R. Rasmussen, 2017: Large Eddy Simulations of the impact of ground-based glaciogenic seeding on shallow orographic convection: a case study. *J. Appl. Meteor. Climatol.,* **56**, 69–84, doi: 10.1175/JAMC-D-16-0191.1.

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69. Keeler, J. M., B. F. Jewett, R. M. Rauber, G. M. McFarquhar, R. M. Rasmussen, **L. Xue**, C. Liu, and G. Thompson, 2016: Dynamics of cloud-top generating cells in winter cyclones. Part I: Idealized simulations in the context of field observations. *J. Atmos. Sci.*, **73**, 1507–1527.

70. Keeler, J. M., B. F. Jewett, R. M. Rauber, G. M. McFarquhar, R. M. Rasmussen, **L. Xue**, C. Liu, and G. Thompson, 2016: Dynamics of cloud-top generating cells in winter cyclones. Part II: Radiative and instability forcing. *J. Atmos. Sci.*, **73**, 1529–1553.

71. **Xue, L.***, X. Chu, R. Rasmussen, and D. Breed, and B. Geerts, 2016: A case study of radar observations and WRF LES simulations of the impact of ground-based glaciogenic seeding on orographic clouds and precipitation. Part II: AgI dispersion and seeding signals simulated by WRF. *J. Appl. Meteor. Climat*., 55, 445–464.

72. Wang, Z., Z. Qi, **L. Xue**, M. Bukovsky, and M. J. Helmers ,2015. Modeling the impacts of climate change on nitrogen losses and crop yield in a subsurface drained field. *Climatic Change*, *129*(1-2), 323-335.

73. Chen, D., Z. Liu, C. S. Schwartz, H.-C. Lin, J. D. Cetola, Y. Gu, and **L. Xue**, 2014: The impact of aerosol optical depth assimilation on aerosol forecasts and radiative effects during a wild fire event over the United States. *Geoscientific Model Development*, **7**, 2079-2715.

74. Chu, X., **L. Xue**, B. Geerts, R. Rasmussen, and D. Breed, 2014: A case study of radar observations and WRF LES simulations of the impact of ground-based glaciogenic seeding on orographic clouds and precipitation: Part I: Observations and model validations. *J. Appl. Meteor. Climatol.,* **53** (10), 2264-2286.

75. **Xue, L.***, X. Chu, R. Rasmussen, D. Breed, B. Boe and B. Geerts, 2014: The dispersion of silver iodide particles from ground-based generators over complex terrain. Part 2: WRF Large-Eddy simulations vs. Observations. *J. Appl. Meteor. Climatol.,* 53, 1342-1361.

76. Boe, B., J. A. Heimbach Jr, T. W. Krauss, **L. Xue**, X. Chu, and J. T. McPartland, 2014: The Dispersion of Silver Iodide Particles from Ground-Based Generators over Complex Terrain. Part I: Observations with Acoustic Ice Nucleus Counters. *J. Appl. Meteor. Climatol.,* 53, 1325-1341.

77. Zhang, G., G. Zhou, F. Chen, M. Barlage and **L. Xue**, 2013: A trial to improve surface heat exchange simulation through sensitivity experiments over a desert steppe site. *J. Hydrometeor.,* **15**, 664-684.

78. **Xue, L.*,** S. Tessendorf, E. Nelson, R. Rasmussen, D. Breed, S. Parkinson, P. Holbrook, and D. Blestrud, 2013: Implementation of a Silver Iodide Cloud Seeding Parameterization in WRF: Part 2: 3D Simulations of Actual Seeding Events and Sensitivity Tests. *J. Appl. Meteor. Climatol.,* **52**, 1458-1476.

79. **Xue, L.***, A. Hashimoto, M. Murakami, R. Rasmussen, S. Tessendorf, D. Breed, S. Parkinson, P. Holbrook, and D. Blestrud, 2013: Implementation of a Silver Iodide Cloud Seeding Parameterization in WRF: Part 1: Model Description and Idealized 2D Sensitivity Tests. *J. Appl. Meteor. Climatol.,* **52**, 1433-1457.

80. Teller, A., **L. Xue**, and Z. Levin, 2012: The effects of mineral dust particles, aerosol regeneration and ice nucleation parameterizations on clouds and precipitation**.** *Atmos. Chem. Phys.*, **12**, 9303-9320, doi:10.5194/acp-12-9303-2012.

81. Chen, Y.-C., M. W. Christensen, **L. Xue**, A. Sorooshian, G. L. Stephens, R. M. Rasmussen, and J. H. Seinfeld, 2012: Occurrence of Lower Cloud Albedo in Ship Tracks. *Atmos. Chem. Phys.*, **12**, 8223 - 8235, doi:10.5194/acp-12-8223-2012.

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83. Lou X. F., Shi Y. Q., Sun J., **L. Xue**, Z. J. Hu, W. Fang, and W. G. Liu, 2012: Cloud-resolving model for weather modification in China. *Chin Sci Bull*, 57: 10551061, doi: 10.1007/s11434-011-4934-9

84. Chen, Y., **L. Xue**, Z. J. Lebo, H. Wang, R. M. Rasmussen, and J. H. Seinfeld, 2011: A comprehensive numerical study of aerosol-cloud-precipitation interactions in marine stratocumulus. *Atmos. Chem. Phys.,* doi:10.5194/acp-11-9749-2011

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86. Muhlbauer, A., T. Hashino, **L. Xue**, A. Teller, U. Lohmann, R. Rasmussen, I. Geresdi, and Z. Pan, 2010: Intercomparison of aerosol-cloud-precipitation interactions in stratiform orographic mixed-phase clouds. *Atmos. Chem. Phys.* doi:10.5194/acp-10-8173-2010.

87. Pan, Z., X.-B. Yang, X. Li, D. Andrade, **L. Xue**, and N. McKinne, 2010: Prediction of plant diseases through modeling and monitoring airborne pathogen dispersal - a review. *CAB Reviews*, PAVSNNR-D-09-00177R1.

88. Li, X., P. Esker, Z. Pan, A. P. Dias, **L. Xue**, and X. B. Yang, 2010: "Unique" Characteristics of Asian Soybean Rust: Improved Understanding of the Risk in Different Regions of the World. *Plant Disease*. **94**, 796-806.

89. **Xue, L.*** and Z. Pan, 2008: Ensemble calibration and sensitivity study of a surface CO_2 flux scheme using an optimization algorithm. *J. Geophys. Res.*, **113**, D10109.

90. Pan, Z., X.B. Yang, S. Pivonia, **L. Xue**, R. Pasken, and J. Roads, 2006: Long-Term Prediction of Soybean Rust Entry into the Continental United States. *Plant Disease*, **90**, 840-846.

PATENTS

1. **Xue, L.**, R.M. Rasmussen, and S.A. Tessendorf, 2021: Method and system for determining cloud seeding potential. US Patent App. 16/250,807, 2020, US20200233115A1.

INVITED SEMINAR AND TALK

MARCH 2023
Ohio State University Taming the Sky. Columbus, OH.

JANUARY 2023
6th International Rain Enhancement Forum A new sea-salt and hygroscopic seeding bulk microphysics parameterization: A warm cumulus simulation using the WRF piggybacking framework. Abu Dhabi, UAE.

SEPTEMBER 2022
Brookhaven National Laboratory Taming the Sky – Propeller of Cloud Physics Research. Virtual.

APRIL 2022
University of Wyoming Taming the Sky. Laramie, WY.

MARCH 2022
University of Oklahoma Taming the Sky – A Story of Aerosol-Cloud-Precipitation Interactions. Norman, OK.

NOVEMBER 2021

1st International Association of Meteorological Education and Sciences conference The COMBLE campaign: a study of marine boundary-layer clouds in Arctic cold-air outbreaks. Virtual.

OCTOBER 2021
University of North Dakota Recent Breakthroughs in Cloud Seeding Research – the SNOWIE project. Grand Forks, ND.

JANUARY 2021
5th International Rain Enhancement Forum Aerosol, Cloud, Precipitation, and Rain Enhancement in the Gulf – An Overview of the UAE-NATURE Research. Virtual.

JANUARY 2021
101st AMS annual meeting Quantifying the Impacts of Cloud Seeding Using WRF-WxMod Ensemble Simulations and SNOWIE Observations. Virtual.

JANUARY 2020
4th International Rain Enhancement Forum DNS simulations of aerosol-cloud interaction in hygroscopic seeding scenario. Abu Dhabi, UAE.

JANUARY 2020
3rd Ice Nucleation Conference Overview of the research on glaciogenic seeding of wintertime orographic clouds. Boston, MA.

OCTOBER 2019
Peking University An Overview of the SNOWIE Field Campaign. Beijing, China.

AUGUST 2019
University of Oklahoma UAE-NATURE overview. Norman, OK.

JULY 2019
Chongqing Meteorological Services GPU Accelerated Large Eddy Simulation with FastEddy™ Chongqing, China.

JUNE 2019
Beijing Aircraft In-situ Measurement International Workshop An Overview of the SNOWIE Field Campaign. Beijing, China.

APRIL 2019
Workshop on Eulerian vs. Lagrangian methods for cloud microphysics International Cloud Modeling Workshop 2020. Cracow, Poland.

JANUARY 2019
3rd International Rain Enhancement Forum UAE-NATURE ins and outs in year 0.5. Abu Dhabi, UAE.

JANUARY 2019
New York University Abu Dhabi Climate Change Studies over the US based on High Resolution WRF Model Simulations. Abu Dhabi, UAE.

NOVEMBER 2018

University of Hohenheim Modeling System for Glaciogenic Cloud Seeding. Stuttgart, Germany.

NOVEMBER 2018
University of Pecs Modeling System for Glaciogenic Cloud Seeding. Pecs, Hungary.

OCTOBER 2018
McGill University How does the rainfall change over Hawaii in the future? High resolution regional climate simulation of the Hawaiian islands. Montreal, Canada.

NOVEMBER 2017
10th International Workshop on Cloud Physics and Aerosol Understanding warm rain initiation: Impact of small-scale turbulence on the droplet size spectrum broadening simulated by Direct Numerical Simulation (DNS). Virtual.

OCTOBER 2017
Institute of Atmospheric Physics Understanding warm rain initiation: Impact of small-scale turbulence on the droplet size spectrum broadening simulated by Direct Numerical Simulation (DNS). Beijing, China.

JUNE 2017
National Marine Environmental Forecasting Center Hawaii regional climate simulation – preliminary results. Beijing, China.

JUNE 2017
Institute of Urban Meteorology Evaluation of the impacts of turbulence and overturning cells on mixed-phase clouds using idealized Large Eddy Simulations. Beijing, China.

JUNE 2017
Chinese Academy of Meteorological Sciences World Meteorological Organization (WMO) Solid Precipitation Inter-comparison Experiment (SPICE). Beijing, China.

JUNE 2017
5th Workshop for Beijing Field Study of Urban-Impact on Rainfall and Fog/Haze Summary of the 1st Beijing International Symposium on Cloud Physics & Weather Modification. Beijing, China.

JUNE 2017
1st Beijing International Symposium on Cloud Physics & Weather Modification WRF Cloud Seeding System. Beijing, China.

APRIL 2017
Weather Modification Association annual meeting WRF Cloud Seeding Module: Development and Implementation. Boise, ID.

DECEMBER 2016
Nanjing University of Information Science and Technology Hawaii regional climate simulation – preliminary results. Nanjing, China.

DECEMBER 2016

Lanzhou University Turbulent impact on snow growth in orographic clouds. Lanzhou, China.

DECEMBER 2016
Lanzhou University AgI dispersion simulated by WRF LES, PBL schemes and inline WRF-HYSPLIT. Lanzhou, China.

DECEMBER 2016
Qinghai Weather Modification Office On the numerical simulations of wintertime orographic cloud seeding. Qinghai, China.

DECEMBER 2016
Beijing Weather Modification Office SNOWIE Field Program: Seeded and Natural Orographic Wintertime clouds: the Idaho Experiment. Beijing, China.

DECEMBER 2016
Beijing Weather Modification Office Observations and simulations of a Pre-SNOWIE case on February 12, 2014. Beijing, China.

JUNE 2016
9th International Workshop on Cloud Physics and Aerosol Comparison of Snow Ag Concentration in Payette Basin between Observations and Model Simulations on Feb. 18 2016. Daegu, South Korea.

JUNE 2016
9th International Workshop on Cloud Physics and Aerosol AgI Targeting Assessment Using Snowpack Trace Chemistry: Method Development and Results Summary. Daegu, South Korea.

DECEMBER 2015
Saint Louis University On the numerical simulations of wintertime orographic cloud seeding. Saint Louis, MO.

APRIL 2015
University of Illinois Glaciogenic seeding of wintertime orographic clouds: A numerical simulation perspective. Champaign, IL.

OCTOBER 2014
University of Wyoming Glaciogenic seeding of wintertime orographic clouds: A numerical simulation perspective. Laramie, WY.

SEPTEMBER 2014
Nanjing University of Information Science and Technology Applications of bin microphysics scheme in squall line, orographic cloud and AgI seedig simulations. Nanjing, China.

SEPTEMBER 2014
Chinese Academy of Meteorological Sciences Glaciogenic seeding of wintertime orographic clouds: A numerical simulation perspective. Beijing, China.

INVITED GUEST LECTURES

FEBRUARY 2023
University of Colorado in Boulder Taming the Sky. Boulder, CO.

DECEMBER 2022
University of Colorado in Boulder Simulations of Orographic Clouds and Precipitation - Applications to real world problems. Boulder, CO.

MARCH 2022
University of Oklahoma Cloud Physics – Warm-phase Microphysics. Norman, OK.

SERVICE AND LEADERSHIP

FEBRUARY 2023 – PRESENT
Associate Editor in Chief for Advances in Atmospheric Sciences

JULY 2022 – JANUARY 2023
Editor for Advances in Atmospheric Sciences

FEBURARY 2022 – MARCH 2023
President of the Chinese-America Oceanic and Atmospheric Association – Colorado Chapter and board member of the Chinese-America Oceanic and Atmospheric Association Headquarter

AUGUST 2021 - PRESENT
Chair and organizer of the "11th International Cloud Modeling Workshop"

MAY 2021
Panel reviewer for the UAE Research Program for Rain Enhancement Science proposals

APRIL 2021
Panel reviewer for the Department of Energy Atmospheric System Research proposals

OCTOBER 2019 – NOVEMBER 2019
Co-organizer of the "Workshop to Explore Science Opportunities and Concepts for a Large-Scale Aerosol-Cloud-Turbulence Research Facility"

APRIL 2019 – JUNE 2019
Co-organizer of the "Beijing Aircraft In-situ Measurement International Workshop"

FEBRUARY 2019 – APRIL 2019
Co-convener of the "The Nexus between Weather Modification and Limited-Area Geoengineering" session at EGU 2019 general assembly

OCTOBER 2018 – SEPTEMBER 2021
Chair and organizer of the "Workshop on laboratory facilities for cloud research"

SEPTEMBER 2018 – SEPTEMBER 2020
Co-chair of the RAL Social Activity Committee

SEPTEMBER 2018 – SEPTEMBER 2020
RAL Representative Council member

JULY 2018 – AUGUST 2021
Chair and organizer of the "10th International Cloud Modeling Workshop"

JULY 2018
Chair of three sessions at AMS Conference on Cloud Physics in Vancouver

JANUARY 2018
Chair of one session at AMS Annual Conference

APRIL 2017 – APRIL 2018
Reviewer for RAL opportunity fund proposals

APRIL 2017 – JUNE 2017
Chair and co-organizer of the "1st Beijing International Symposium on Cloud Physics & Weather Modification"

MARCH 2017 – JANUARY 2019
Associate editor for Journal of Applied Meteorology and Climatology

JANUARY 2017 – DECEMBER 2017
Lead guest editor of a special issue in the journal of Advances in Meteorology

DECEMBER 2016 – PRESENT
ASP postdoc selection committee member in RAL

APRIL 2016 – APRIL 2018
RAL representative of Early Career Scientist Assembly at NCAR

MARCH 2016 – PRESENT
Member of the advisory panel for the Beijing Key laboratory of cloud, precipitation and atmospheric water resources

OCTOBER 2015 – PRESENT
Reviewer for NSF proposals

JUNE 2015 – PRESENT
Board member of the Chinese-America Oceanic and Atmospheric Association – Colorado Chapter

SEPTEMBER 2013 – JUNE 2016
Co-organizer of the "9th International Cloud Modeling Workshop"

SEPTEMBER 2011 – PRESENT
Dissertation committee member for Master and Ph.D. students

OCTOBER 2009 – PRESENT
Reviewer for more than 20 top-rated journals

OCTOBER 2009 – OCTOBER 2011

ASP representative of Early Career Scientist Assembly at NCAR

OCTOBER 2009 – OCTOBER 2011
ASP Thompson Lecture committee member

OCTOBER 2009 – OCTOBER 2011
ASP research review committee member

CONFERENCE ABSTRACTS: (STOP UPDATING AFTER 2019)

2019

Xue L., 2019: International Cloud Modeling Workshop 2020. Workshop on Eulerian vs. Lagrangian methods for cloud microphysics. Cracow, Poland

Xue L., Ping Tian, Mengyu Huang, Hui He, Xiaoqin Jing, Qian Chen, Chunsong Lu, Yan Yin, Istvan Geresdi, Noemi Sarkadi, Olivier Pauluis, Ajaya Ravindran, Sourav Taraphdar, Roy Rasmussen, Wojciech Grabowski, Sarah Tessendorf, Changhai Liu, and Sisi Chen, 2019: Using Advanced Experimental - Numerical Approaches To Untangle Rain Enhancement (UAE-NATURE). EGU general assembly, Vienna, Austria

Xue L., N. Sarkadi, R. M. Rasmussen, S. A. Tessendorf, W. W. Grabowski, and I. Geresdi, 2019: Separating Microphysical Impacts from Dynamic Feedbacks in a Winter Orographic Seeding Case from SNOWIE. AMS annual meeting 2019, Phoenix, AZ

2018

Xue L., Yaping Wang, Andrew James Newman, Kyoko Ikeda, Roy Rasmussen, Thomas W Giambelluca, Ryan J Longman, Andrew Monaghan, Martyn P Clark and Jeffrey Richard Arnold, 2018: How does the rainfall change over Hawaii in the future? High resolution regional climate simulation of the Hawaiian Islands. AGU 2018 fall meeting, Washington D.C.

Xue L., W. Wu, R. M. Rasmussen, S. A. Tessendorf, J. R. French, K. Friedrich, B. Geerts, R. M. Rauber, D. Blestrud, M. L. Kunkel, N. Dawson, and S. Parkinson, 2018: Sensitivity Simulations of Ice Production in a Super-Cooled Orographic Cloud during the SNOWIE Field Campaign. 15th Conference on Cloud Physics, Vancouver, Canada

Xue, L., R. Rasmussen, S. Tessendorf, C. Weeks, K. Ikeda, D. Breed, S. Landolt, Q. Gao, and X. Liu, 2018: New Insight on WWMPP RSE Results Using an Ensemble Modeling Approach. Wyoming Technical Advisory Team meeting, Cheyenne, WY.

Xue, L., and R. Rasmussen, 2018: Design of the ensemble seeding simulations for the Randomized Seeding Experiments of the Wyoming Weather Modification Pilot Project. AMS annual meeting 2018, Austin, TX

Xue, L., W. Wu, R. Rasmussen, S. Tessendorf, J. French, K. Friedrich, B. Geerts, R. Rauber, D. Blestrud, M. Kunkel, and S. Parkinson, 2018: Simulation of an airborne cloud seeding event during the SNOWIE field campaign. AMS annual meeting 2018, Austin, TX

2017

Xue, L., B. Notaros, A. Newman, G.-J. Huang, and V. N. Bringi, 2017: Validation of Bin Microphysics in Large Eddy Simulations for the 30 January 2012 Lake Effect snow case during GCPEx. AGU 2017 fall meeting, New Orleans, LA

Xue, L., S. Tessendorf, R. Rasmussen, P. Holbrook, D. Blestrud, M. Kunkel, and S. Parkinson, 2017: WRF simulated and observed Ag deposition comparison in downwind area of the Payette basin. WMA annual meeting, Boise, ID

Xue, L., J. Fisher, S. Benner, M. Kunkel, D. Blestrud, B. Glenn, S. Tessendorf, R. Rasmussen, and S. Parkinson, 2017: Summary of the performance of the NCAR Wintertime AgI Seeding Case-calling Algorithm (WASCA): 2012 to 2017. WMA annual meeting, Boise, ID

2016

Xue, L., Z. Lebo, J. Fan, W. Wu, I. Geresdi, A. Bansemer, X. Chu, H. Morrison, R. Rasmussen, W. Grabowski, A. Heymsfield, G. McFarquhar, 2016: Simulations of a squall line case from MC3E applying three different bin microphysics schemes. 17th International Conference on Cloud and Precipitation, Manchester, UK

Xue, L., I. Geresdi, R. Rasmussen, S. Tessendorf, C. Weeks, J. French, B. Geerts, P. Holbrook, D. Blestrud, M. Kunkel, S. Parkinson, 2016: Simulation of an orographic cloud airborne seeding case using a bin microphysics scheme. 17th International Conference on Cloud and Precipitation, Manchester, UK

Xue, L., R. Rasmussen, K. Ikeda, M. Clark, 2016: Sensitivity of precipitation to clouds over upwind ocean in the Hawaii Island. 17th International Conference on Cloud and Precipitation, Manchester, UK

Wang, Y., L. Xue, B. Geerts, 2016: Mixed-phase Convective Clouds in the High-latitude Boundary Layer over Water: evaluation of convection parameterizations with LES simulations and observations. 17th International Conference on Cloud and Precipitation, Manchester, UK

Geresdi, I., L. Xue, R. Rasmussen, N. Sarkadi, 2016: 3D numerical simulation of orographic cloud seeding using a bin microphysics scheme. 17th International Conference on Cloud and Precipitation, Manchester, UK

Geerts, B., X. Chu, L. Xue, 2016: Large Eddy Simulations of the impact of shear-driven turbulence on snow growth. 17th International Conference on Cloud and Precipitation, Manchester, UK

Wu, W., G. McFarquhar, L. Xue, H. Morrison, W. Grabowski, 2016: The effectiveness of spectral bin schemes in simulating ice cloud particle size distributions and their variability. 17th International Conference on Cloud and Precipitation, Manchester, UK

Tessendorf, S., J. French, C. Weeks, R. Rasmussen, B. Geerts, B. Pokharel, L. Xue, P. Holbrook, D. Blestrud, M. Kunkel, S. Parkinson, 2016: The evolution and precipitation production of an orographic wintertime cloud with freezing drizzle. 17th International Conference on Cloud and Precipitation, Manchester, UK

French, J., S. Tessendorf, D. Jacobson, R. Rasmussen, B. Geerts, B. Pokharel, L. Xue, P. Holbrook, M. Kunkel, D. Blestrud, S. Parkinson, 2016: A detailed examination of the microphysical processes leading to ice production within an orographic wintertime cloud with freezing drizzle. 17th International Conference on Cloud and Precipitation, Manchester, UK

Xue, L., J. Fisher, R. Edwards, S. Benner, S. Tessendorf, R. Rasmussen, M. Kunkel, D. Blestrud, P. Holbrook, and S. Parkinson, 2016: Comparison of Snow Ag Concentration in Payette Basin between Observations and Model Simulations on Feb. 18 2016. WMA annual meeting 2016, Long Beach, CA

2015

Xue, L., B. Kosovic, H. Shin, J. Dudhia, S. Tessendorf, R. Rasmussen, P. Holbrook, D. Blestrud, M. Kunkel, S. Parkinson, 2015: Dispersion of particles in complex terrain: comparisons between WRF LES and simulations using different PBL schemes. AGU 2015 Fall Meeting, San Francisco, CA

Tessendorf, S, L. Xue, C. Weeks, R. Rasmussen, J. French, B. Geerts, P. Holbrook, D. Blestrud, M. Kunkel, S. Parkinson, 2015: Case Studies of Mixed-phase Winter Orographic Clouds with High Liquid Water Content over Idaho. AGU 2015 Fall Meeting, San Francisco, CA

Ikeda, K., S. Tessendorf, C. Weeks, R. Rasmussen, D. Axisa, L. Xue, 2015: Characteristics of Wintertime Precipitation in Two Western Wyoming Mountainous Regions. AGU Fall Meeting, San Francisco, CA

Xue, L. et al., Can Wintertime Orographic Clouds Be over Seeded by AgI? AMS annual meeting, Phoenix, AZ, Jan. 6th, 2015.

Xue, L. et al., What Does the Model Tell Us about the Seeding Effect: Results of WRF Simulations of WWMPP Seeding Cases in 3 Seasons. AMS annual meeting, Phoenix, AZ, Jan. 7th, 2015.

Xue, L. et al., AgI Dispersion and Seeding Impacts on a Wintertime Orographic Cloud Simulated by WRF LES. AMS annual meeting, Phoenix, AZ, Jan. 7th, 2015.

Xue, L. et al., A MC3E Squall line simulated by three bin microphysics schemes: comparisons between model results and observations. DOE ASR science meeting, Washington D.C., Mar. 17th. 2015.

2014

Xue, L. et al., Modeling orographic clouds and cloud seeding. RAL retreat, Boulder, CO, Dec. 8th, 2014.

Xue, L. et al., Glaciogenic seeding of wintertime orographic clouds. NCAR/RAL HAP RIPR, Boulder, CO, May 2013.

Xue, L. et al., Comparisons of Properties in a Squall Line Between Observations and Bin Microphysics Simulations. DOE ASR science meeting, Washington D.C., Mar. 11th. 2014.

2013

Xue, L., A. Hashimoto, M. Murakami, S. Tessendorf, R. Rasmussen, E. Nelson, D. Breed, B. Lawrence, D. Blestrud, P. Holbrook, and S. Parkinson, 2013: AgI cloud seeding effects as seen in WRF simulations. *19th Conference on Weather Modification, 93 AMS annual meeting,* Austin, TX, Jan. 2013.

Tessendorf, S., L. Xue, R. Rasmussen, D. Blestrud, P. Holbrook, and S. Parkinson, 2013: A real-time cloud seeding guidance system based on the WRF model. *19th Conference on Weather Modification, 93 AMS annual meeting,* Austin, TX, Jan. 2013.

Rasmussen, R., L. Xue, S. Tessendorf, D. Blestrud, P. Holbrook, and S. Parkinson, 2013: Comparisons between WRF simulations and ground observed trace chemistry. *19th Conference on Weather Modification, 93 AMS annual meeting,* Austin, TX, Jan. 2013.

Chu, X., L. Xue, B. Geerts, and B. Boe, R. Rasmussen, and D. Breed, 2013: Validation of WRF and WRF LES Simulations of the Dispersal of Ground-generated AgI Nuclei. *19th Conference on Weather Modification, 93 AMS annual meeting,* Austin, TX, Jan. 2013.

2012

Xue, L., X. Chu, R. Rasmussen, D. Breed, B. Boe and B. Geerts, 2012: How well does WRF-LES disperse tracers over a mountain? An evaluation of AgI nuclei dispersal and the model's turbulence characteristics, 1st ASCII science meeting, Laramie, WY, Oct. 2012.

Xue, L., 2012: The effect of vertical resolution on orographic precipitation and scalar transportation, 1st Pan-GASS conference meeting, Boulder, CO, Sep. 2012.

2011

Xue, L., R. Rasmussen and D. Breed, 2011: AgI plumes in WRF LES simulations versus airborne measurements, *AGU 2011 Fall Meeting*, San Francisco, CA, Dec. 2011

Xue, L., S. Tessendorf and R. Rasmussen, 2011: Winter time orographic cloud seeding effects in WRF simulations, *AGU 2011 Fall Meeting*, San Francisco, CA, Dec. 2011

Xue, L., C. Liu, A. Hashimoto, R. Rasmussen, and D. Breed, 2011: Simulations of seeding effects on winter orographic clouds using a two-moment microphysics scheme with a AgI point source module, *18th Conference on Weather Modification, 91 AMS annual meeting*, Seattle, WA, Jan. 2011.

2010

Xue, L. 2010: Externally Mixed Aerosols to Internally Mixed Aerosols: A Numerical Study of Cloud Processing Using a Bin Aerosol-microphysics Scheme Coupled with WRF, *AGU 2010 Fall Meeting,* San Francisco, CA, Dec. 2010

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