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Associate Professor
College of Charleston
Department of Physics and Astronomy
317 Rita Hollings Science Center
58 Coming Street
Charleston, SC 29424

Education

- Doctor of Philosophy (Physics), August 2006
  Department of Physics, Michigan Technological University, Houghton, MI
  Thesis title: Studies of Discrete Fluctuations in Atmospheric Phenomena
  Thesis advisor: Dr. Alexander B. Kostinski
  Graduate GPA : 3.88
- Bachelor of Science (Physics), May 2001
  Department of Physics, Michigan Technological University, Houghton, MI
  GPA : 3.95 / Graduated *summa cum laude*

Professional Employment

- College of Charleston, Charleston, SC
  Department of Physics and Astronomy
  Associate Professor (Tenured), 2016-Present
  Assistant Professor, 2010-2016
- Michigan Technological University, Houghton, MI
  Department of Physics
  Adjunct Associate Professor, 2018-Present
  Visiting Scholar (Sabbatical), 2017-2018
  National Defense Science and Engineering Graduate Fellow, 2003-2006
  Graduate Research Assistant, 2002-2003
  Graduate Fellow, 2002
- University of Nebraska at Kearney, Kearney, NE
  Department of Physics and Physical Science
  Assistant Professor, 2007-2010
- Army Research Laboratory, Adelphi, MD
  Battlefield Environment Division
  Consultant, 2007-2009
  National Research Council Postdoctoral Fellow, 2006-2007
  (Funded Proposal: Analysis of the Role of Number Fluctuations in an Apparatus to Detect Hazardous Airborne Particles)
- NASA-Goddard Space Flight Center, Greenbelt, MD
  NASA-Goddard Earth Science and Technology Center
  Graduate Researcher in GSSP Summer Program, 2003
  (Project Title: A New Approach to Simulating a Realistic Spatial Structure of Cloud Droplets)

Research Funding

Total Funding Awarded (After Post-Doc): $1,368,050

- Sole PI 2020-2023 Collaborative Research to Explore the Spatial/Temporal Statistical Physics Structures of Rain in the Vertical Plane. National Science Foundation($399,196)
- Sole PI 2020-2021 Investigation of Deviations from the Beer-Lambert-Bouguer Law in Laboratory-Generated Clouds. South Carolina Space Grant Research and Education Awards Program (SCSG REAP)($20,000)
- Sole PI 2018-2021 The Relationship of the Spatial/Temporal Variability of Rain to Scaling. National Science Foundation($142,244)
- Sole PI 2017 Carolina Eclipse Initiative Grant Proposal($1,500)
- Substitute PI 2016-2017 Measurement of Trace Gas and Particle Air-Surface Exchange in a Coastal Environment. Environmental Protection Agency via Amec Foster Wheeler($49,564) [took over contract for vacated faculty member].
- Sole PI 2015-2018 Meteorological Variability of the Two Dimensional/Temporal Structures of Drop Size Distributions and Rain. National Science Foundation($345,911)
- Sole PI 2015 Development of a Dense Rain Gauge Array at Dixie Plantation. College of Charleston Faculty Research & Development Grant ($3,828)
- CoI 2014-2015 Quantifying Deviations from the Beer-Lambert-Bouguer Law in Uncorrelated Media in the Presence of Scattering. Connecticut Space Grant College Consortium ($7,445)
- Sole PI 2012-2016 Characterization of the Two-dimensional/Temporal Mosaic of Drop Size Distributions and Spatial Variability (Structure) in Rain. National Science Foundation ($325,402)
- Sole PI 2011-2012 Absorption and Scattering in Correlated Random Media. Research Corporation Cottrell College Science Award ($35,000)
- Primary PI 2011-2012 Cloud Coverage as an Indicator of Regional Climate Change. South Carolina Space Grant Geospatial Institute for Students and Teachers in Climate Change ($9,650)
- Sole PI 2010-2011 Turbulent Mixing of Aerosols. College of Charleston Faculty Research & Development Grant ($3,310)
- Sole PI 2010 Characterization of Affordable Drop-by-Drop Rain Detection Instruments. NASA Space Grant Minigrant ($10,000)
- Sole PI 2009-2010 Development of Precipitation Monitoring Systems for a Distributed Rain-Sensing Network. NASA Space Grant Minigrant ($10,000)
- Sole PI 2009 NASA travel grant ($1,000)
- Sole PI 2009 UNK Program of Excellence Funds for a 3D-Ultrasonic Anemometer ($3,000)
- Sole PI 2008-2009 UNK Focused Assessment Grant ($1,000)

Awards

- College of Charleston William V. Moore Distinguished Teacher-Scholar Award (2019)
- College of Charleston Gordon E. Jones Distinguished Achievement Award (2019)
- National Research Council Postdoctoral Fellowship (2006)
- National Defense Science and Engineering Graduate Fellowship (2003)
- ΦκΦ Member (Multidisciplinary Honor Society)

Peer-Reviewed Publications

Green names indicate undergraduate student co-authors. Purple names indicate graduate student co-authors.

1. A new approach to account for vertical air speed in zenith radar spectral measurements in rain
   A. Jameson, M.L. Larsen, and D. Wolff
   Journal of Applied Meteorology and Climatology, In review.

2. Multivalent surface cations enhance heterogeneous freezing of water
   N. Lata, J. Zhou, P. Hamilton, M.L. Larsen, S. Sarupria, and W. Cantrell
   Journal of Physical Chemistry Letters, 2020, 11, 8682–8689 (2020)
   doi:10.1021/acs/jpclett.0c02121

3. Refinements to data acquired by 2-Dimensional Video Disdrometers
   M.L. Larsen and C.K. Blouin
   Atmosphere, 11, 855 (2020)
   Special Issue on "Measurement and Modeling of the Precipitation Particle Size Distribution"
   doi: 10.3390/atmos11080855

4. Light scattering in a turbulent cloud: Simulations to explore cloud-chamber experiments
   C. Packard, M.L. Larsen, S. Thomas, W. Cantrell, and R. Shaw
   Atmosphere, 11, 837 (2020)
   Special Issue on "The Motion of Particles in Turbulence"
   doi: 10.3390/atmos11080837

5. Holographic observations of centimeter-scale nonuniformities with marine stratocumulus clouds
   S. Glienke, A.B. Kostinski, R.A. Shaw, M.L. Larsen, J.P. Fugal, O. Schlenczek, and S. Borrmann
   Journal of the Atmospheric Sciences, 77, 499-512 (2020)
   doi: 10.1175/JAS-D-19-01641

6. Light scattering in a spatially-correlated particle field: Role of the radial distribution function
   C.D. Packard, M.L. Larsen, W.H. Cantrell, and R.A. Shaw
   Journal of Quantitative Spectroscopy and Radiative Transfer, 236, 106601 (2019)
   doi: 10.1016/j.jqsrt.2019.106601

7. Fine-scale Droplet Clustering in Atmospheric Clouds: 3D Radial Distribution Function from Airborne Digital Holography
   M.L. Larsen, R.A. Shaw, A.B. Kostinski, and S. Glienke
   Physical Review Letters, 121, 204501 (2018).
   doi: 10.1103/PhysRevLett.121.204501

8. Identification and Characterization of an Anomaly in 2-Dimensional Video Disdrometer Data
M.L. Larsen and M. Schönhuber
Atmosphere, 9, 315 (2018).
doi: 10.3390/atmos9080315

9. A Method for Computing the Three-Dimensional Radial Distribution Function of Cloud Particles from Holographic Images
M.L. Larsen and R.A. Shaw
Atmospheric Measurement Techniques Discussion, (2018).
doi: 10.5194/amt-2018-60
Atmospheric Measurement Techniques, 11, 4261–4272 (2018).
doi: 10.5194/amt-11-4261-2018

10. On the Detection of Statistical Heterogeneity in Rain Measurements
A.R. Jameson, M.L. Larsen, and A.B. Kostinski
Journal of Atmospheric and Oceanic Technology, 35, 1339–1413 (2018).
doi: 10.1175/JTECH-D-17-0161.1

11. Sampling Variability Effects in Drop-Resolving Disdrometer Observations
M.L. Larsen and K. O'Dell
Journal of Geophysical Research: Atmospheres, 121, (2016).
doi: 10.1002/2016JD025491

12. An Example of Persistent Microstructure in a Long Rain Event
A.R. Jameson, M.L. Larsen, and A.B. Kostinski
Journal of Hydrometeorology, 17, 1661–1673 (2016).
doi: 10.1175/JHM-D-15-0180.1

13. Estimates of the Statistical Two-Dimensional Spatial Structure in Rain over a Small Network of Disdrometers
A.R. Jameson and M.L. Larsen
Meteorology and Atmospheric Physics. 128, 401–413 (2016).
doi: 10.1007/s00703-016-0438-0

14. The Variability of Rainfall Rate as a Function of Area
A.R. Jameson and M.L. Larsen
Journal of Geophysical Research: Atmospheres, 121, (2016).
doi: 10.1002/2015JD024126

15. Identifying Individual Rain Events with a Dense Disdrometer Network
M.L. Larsen and J.B. Teves
Advances in Meteorology, 2015, Article ID 582782, 12 pages (2015).
doi: 10.1155/2015/582782

16. Disdrometer Network Observations of Finescale Spatial-Temporal Clustering in Rain
A.R. Jameson, M.L. Larsen, and A.B. Kostinski
Journal of the Atmospheric Sciences, 72(4), 1648–1666 (2015).
doi:10.1175/JAS-D-14-0136.1

17. On the Variability of Drop Size Distributions over Areas
A.R. Jameson, M.L. Larsen, and A.B. Kostinski
Journal of the Atmospheric Sciences, 72(4), 1386–1397 (2015).
doi: 10.1175/JAS-D-14-0258.1

18. Scaling properties of raindrop size distributions as measured by a dense array of optical disdrometers
M.L. Larsen, T.B. Hayward, and J.B. Teves
Journal of Hydrology, 521, 424–432 (2015).
doi: 10.106/j.jhydrol.2014.12.016

19. Further evidence for super-terminal raindrops
M.L. Larsen, A.B. Kostinski, and A.R. Jameson
Geophysical Research Letters, 41(19), 6914–6918 (2014).
doi: 10.1002/2014GL061397

20. On the Recovery of 3D Spatial Statistics of Particles from 1D Measurements: Implications for Airborne Instruments
M.L. Larsen, C.A. Briner, and P. Boehner
Journal of Atmospheric and Oceanic Technology, 31(10), 2078–2087 (2014).
doi: 10.1175/JTECH-D-14-00004.1

21. On the link between particle size and deviations from the Beer-Lambert-Bouguer law for direct transmission
M.L. Larsen and A.S. Clark
Journal of Quantitative Spectroscopy and Radiative Transfer, 133, 646-651 (2014).
doi: 10.1016/j.jqsrt.2013.10.001

22. Scale Localization of Cloud Particle Clustering Statistics
M.L. Larsen
Journal of the Atmospheric Sciences, 69 (11), 3277-3289 (2012).
doi: 10.1175/JAS-D-12-02.1

23. Identifying the scaling properties of rainfall accumulation as measured by a rain gauge network
M.L. Larsen, A. Clark, M. Noffke, G. Saltzgaber, and A. Steele
Atmospheric Research, 96, 149-158 (2010).
doi: 10.1016/j.atmosres.2009.12.008

24. Simple dead-time corrections for discrete time series of non-Poisson data
M.L. Larsen and A.B. Kostinski
Measurement Science and Technology, 20, 095101 (2009).
doi: 10.1088/0957-0233/20/9/095101

25. Spatial Distributions of Aerosol Particles: Investigation of the Poisson Assumption
M.L. Larsen
Journal of Aerosol Science, 38 (8), 807-822 (2007).
doi: 10.1016j.jaerosci.2007.06.007

26. The texture of rain: Exploring stochastic micro-structure at small scales
A.B. Kostinski, M.L. Larsen, and A.R. Jameson
Journal of Hydrology, 328 (1-2), 38-45 (2006).
doi: 10.1016/j.jhydrol.2005.11.035

27. Observations and Analysis of Uncorrelated Rain
M.L. Larsen, A.B. Kostinski, and A. Tokay
Journal of the Atmospheric Sciences, 62 (11), 4071-4083 (2005).
doi: 10.1175/JAS3583.1

28. Small-Scale Drop Size Variability: Impact on Estimation of Cloud Optical Properties
Y. Knyazikhin, A. Marshak, M.L. Larsen, W.J. Wiscombe, J.V. Martonchik, and R.B. Myneni
Journal of the Atmospheric Sciences, 62 (7), 2555-2567 (2005).
doi: 10.1175/JAS3488.1

29. Small-Scale Drop Size Variability: Empirical Models for Drop-Size-Dependent Clustering in Clouds
A. Marshak, Y. Knyazikhin, M.L. Larsen, and W.J. Wiscombe
Journal of the Atmospheric Sciences, 62 (2), 551-558 (2005).
doi: 10.1175/JAS-3371.1

30. Response from Authors to Comment on Detection of Spatial Correlations among Aerosol Particles
M.L. Larsen, W. Cantrell, A.B. Kostinski, and J. Kannosto
Aerosol Science and Technology, 38 (2), 129-130 (2004).
doi: 10.1080/02786820490250863

31. Detection of Spatial Correlations among Aerosol Particles
M.L. Larsen, W. Cantrell, J. Kannosto, and A.B. Kostinski
Aerosol Science and Technology, 37 (6), 476-485 (2003).
doi: 10.1080/02786820390126402

32. Towards quantifying droplet clustering in clouds
R.A. Shaw, A.B. Kostinski, and M.L. Larsen
Quarterly Journal of the Royal Meteorological Society, 128 (582), 1043-1057 (2002).
doi: 10.1256/003590002320373193

(Nonreviewed) Books

1. Discrete Fluctuations in Atmospheric Physics: Theory, Models, and Empirical Observations
(Ph.D. Dissertation Excerpt). M.L. Larsen
218 pp., VDM Verlag Dr. Mueller e.K. (2008).

2. Investigations in Earth Science
(Internal Lab/Activity Book for PHYS 201 (Earth Science) at University of Nebraska at Kearney)
M.L. Larsen
160 pp., Published In-House by UNK (2008).
2nd Ed. 183 pp., Published In-House by UNK (2009).
3rd Ed. 193 pp., Published In-House by UNK (2010).

National/International Scientific Conference Presentations

Green names indicate current/former undergraduate student co-authors. Purple names indicate coauthors who were graduate students at the time of the work.

1. Preliminary Intercomparison of Rain Accumulations as Measured by 1- and 2-Dimensional Video Disdrometers
   T. Anderson and M.L. Larsen
   101st Annual Meeting of the American Meteorological Society; 21st Symposium on Meteorological Observation and Instrumentation. New Orleans, LA. 10-14 January, 2021.
2. Preliminary Analysis of Bulk Rain Variables Acquired from Laser Precipitation Monitors Mounted at Different Heights on a Vertical Tower
   C. Barber, M.L. Larsen, E. Bruning, and B. Hirth
   101st Annual Meeting of the American Meteorological Society; 21st Symposium on Meteorological Observation and Instrumentation. New Orleans, LA. 10-14 January, 2021.
3. Adjustments to the Effective Sample Area for 2-Dimensional Video Disdrometer Measurements
   C. Blouin and M.L. Larsen
   101st Annual Meeting of the American Meteorological Society; 21st Symposium on Meteorological Observation and Instrumentation. New Orleans, LA. 10-14 January, 2021.
4. Quantification of Uncertainty in Experimentally Determined Heterogeneous Nucleation Rates
   P. Hamilton, M.L. Larsen, N. Lata, and W. Cantrell
   2020 Fall AGU Meeting. Online Everywhere/San Francisco, CA. 1-17 December, 2020.
5. Exploring the Possible Physical Origins of Raindrops Falling at Non-Terminal Fallspeeds
   B. Ierace, M.L. Larsen, K. O'Dell, and A.B. Kostinski
   2020 Fall AGU Meeting. Online Everywhere/San Francisco, CA. 1-17 December, 2020.
6. Effect of Multivalent Surface Cations on Heterogeneous Freezing of Water
   J. Zhou, N. Lata, P. Hamilton, M.L. Larsen, W. Cantrell, and S. Sarupria
   American Institute of Chemical Engineers (AIChE) Annual Meeting San Francisco, CA. 15-20 November, 2020.
7. Light Propagation in Clouds: From Digital Holography to Non-Exponential Extinction
   R.A. Shaw, J.P. Fugal, S. Glienke, C.D. Packard, W.H. Cantrell, M.L. Larsen, S.M. Spuler, and J.L. Stith
   OSA Laser Congress Vienna, Austria. 29 September - 3 October, 2019.
8. Characterization of an Anomaly in 2-Dimensional Video Disdrometer Data
   M.L. Larsen, M. Schönhuber, and G. Lammer
   2018 Fall AGU Meeting. Washington DC, 10-14 December, 2018.
9. Insights into Aerosol-Cloud Coupling from Laboratory Experiments in a Turbulent Environment
   W. Cantrell, K.K. Chandrakar, N. Desai, G. Kinney, J. Anderson, A.S.M. Shawon, S. Krueger, M.L. Larsen, and R.A. Shaw
   Aerosols and Clouds: Connections from the Laboratory to the Field to the Globe. Telluride, CO. 30 July - 3 August, 2018.
10. Laboratory Measurements of Cloud Scavenging of Interstitial Aerosol by Activation in a Turbulent Enviornment
    W. Cantrell, K.K. Chandrakar, G. Kinney, J. Anderson, A.S.M. Shawon, R.A. Shaw, and M.L. Larsen
    15th AMS Conference on Cloud Physics. Vancouver, Canada. 9-13 July, 2018.

11. Fine-Scale Droplet Clustering in Stratocumulus Clouds from Airborne Digital Holography: 3D Radial Distribution Functions
M.L. Larsen, A.B. Kostinski, R.A. Shaw, and S. Glienke
15th AMS Conference on Cloud Physics. Vancouver, Canada. 9-13 July, 2018.

12. Sampling Considerations Associated with the Interpretation of Disdrometric Data
M.L. Larsen, K. O'Dell, and J. Niehaus
15th AMS Conference on Cloud Physics. Vancouver, Canada. 9-13 July, 2018.

13. A New Algorithm for Computing the Radial Distribution Function in Three-Dimensional Measurement Volumes
M.L. Larsen and R.A. Shaw
15th AMS Conference on Cloud Physics. Vancouver, Canada. 9-13 July, 2018.

14. A Dense Disdrometer Network in the Southeastern United States: Results and New Directions
M.L. Larsen, A.R. Jameson, A.B. Kostinski, and J. Niehaus
European Geosciences Union General Assembly 2018. Vienna, Austria. 8-13 April, 2018.

15. On the Detection of Statistical Heterogeneity in Rain Measurement
A.R. Jameson, M.L. Larsen, and A.B. Kostinski
32nd Conference on Hydrology and *25th Conference on Probability and Statistics* during *98th American Meteorological Society Annual Meeting* Austin, TX. 6-11 January, 2018.

16. Analysis of interarrival times of aerosol particles as measured by an Aerodynamic Particle Sizer Spectrometer
M. Mullis, J. Niehaus, and M.L. Larsen
2017 Fall AGU Meeting. New Orleans, LA. 11-15 December, 2017.

17. Measurement of Air-surface Exchange of Speciated Nitrogen and Sulfur Compounds in a Coastal Environment
G. Beachley, J.T. Walker, M.L. Larsen, J. Niehaus, M. Mullis, and I. Rumsey
National Atmospheric Deposition Program Scientific Symposium and Fall Meeting. San Diego, CA. 30 October - 3 November, 2017.

18. An Index of the Statistical Heterogeneity of Rain Observations
A.R. Jameson, M.L. Larsen, and A.B. Kostinski
European Meteorological Society Annual Meeting. Dublin, Ireland. 4-8 September, 2017.

19. Development of a New Theoretical Framework for the Analysis of Disdrometer Data
M.L. Larsen, R. Lemasters, K. O'Dell, and J. Teves
17th International Conference on Clouds and Precipitation. Manchester, UK. 25-29 July, 2016.

20. Investigating a New Disdrometer Sampling Method to Reduce Measurement Variability
K. O'Dell and M.L. Larsen
17th International Conference on Clouds and Precipitation. Manchester, UK. 25-29 July, 2016.

21. Statistical Assessment of Rainfall Properties over Varying Scales
J.B. Teves and M.L. Larsen
17th International Conference on Clouds and Precipitation. Manchester, UK. 25-29 July, 2016.

22. A Study of Realistic Sampling-Variability Effects on Precipitation Measurements
K. O'Dell and M.L. Larsen
2015 Fall AGU Meeting. San Francisco, CA. 14-18 December, 2015.

23. Novel Insights from Studying Raindrop Arrivals on Sub-Second Timescales
M.L. Larsen and R. Lemasters
2015 Fall AGU Meeting. San Francisco, CA. 14-18 December, 2015.

24. Resolving Airborne Particulate Concentration Inhomogeneities with a Schlieren Optical Technique
A. Payne, A. Teklu, and M.L. Larsen
46th Annual Meeting of the APS Division of Atomic, Molecular, and Optical Physics. Columbus, OH. 8-12 June, 2015.

25. Confirmation of the Existence of Super-Terminal Raindrops
M.L. Larsen, A.B. Kostinski, and A.R. Jameson
2014 Fall AGU Meeting. San Francisco, CA. 15-19 December, 2014.

26. Investigating the Dependence of Fractal Dimension on Raindrop Size for Drop Arrival Times as Measured by a Two-Dimensional Video Disdrometer
R. Lemasters and M.L. Larsen
2014 Fall AGU Meeting. San Francisco, CA. 15-19 December, 2014.

27. Self-Consistency of Rain Event Definitions
J. Teves and M.L. Larsen
2014 Fall AGU Meeting. San Francisco, CA. 15-19 December, 2014.

28. Parameters Governing Deviations from the Beer-Lambert-Bouguer Law for Direct Transmission
A.S. Clark, M.L. Larsen, and J.B. Teves
14th AMS Conference on Atmospheric Radiation. Boston, MA. 7 - 11 July, 2014.

29. Development of a Site to Investigate Rainfall Accumulation and Drop Size Distribution Variability on Small Spatio-Temporal Scales
M.L. Larsen, J.C. Harris, R. Lemasters, K. O'Dell, and J. Teves
38th Annual Meeting of the National Weather Association. North Charleston, SC. 12-17 October 2013.

30. Development of a ballistic photon transport model that explicitly resolves cloud microstructure
M.L. Larsen, A. Clark, A. Steele, and D. Hayes.
13th AMS Conference on Cloud Physics, jointly with 11th AMS Conference on Atmospheric Radiation. Portland, OR. 28 June - 3 July, 2010.

31. Examination of Sub-Pixel Accumulation Variability in Central Nebraska
M.L. Larsen, A. Clark, M. Noffke, G. Saltzgaber, and A. Steele.
34th Conference on Radar Meteorology. Williamsburg, VA. 5-9 October, 2009.

32. Direct Simulation of Radiative Transfer through a 3-Dimensional Correlated Medium
M.L. Larsen, A. Clark, and A. Steele.
Gordon Research Conference on Radiation and Climate. Colby-Sawyer College. New London, NH. 5-10 July, 2009.

33. Unresolved Small-Scale Optical Variability of Clouds: Two Ways of Assessing its Impact on Remote Sensing Observations and Energy Budget Estimations
A.B. Davis, M.L. Larsen, and K. Pfeilsticker.
2006 Fall AGU Meeting. San Francisco, CA. 11-15 December, 2006.

34. A New Model of Spatial Cloud Drop Distribution that Simulates the Observed Drop Clustering: Effect of clustering in Extinction Coefficient Estimates
A. Marshak, Y. Knyazikhin, M.L. Larsen, and W. Wiscombe.
2006 Fall AGU Meeting. San Francisco, CA. 11-15 December, 2006.

35. Impact of Unresolved, Correlated, or Anti-Correlated Spatial Structure on the Bulk Transport of Radiation Inside and Between Clouds, with Applications to Remote Sensing and Energy Budgeting
A.B. Davis, M.L. Larsen, and M.K. Dubey.
2nd International Conference on Global Warming and the Next Ice Age. Sante Fe, New Mexico. 17-21 July, 2006.

36. A New Model of Cloud Drop Distribution that Simulates the Observed Drop Clustering: Effects of Clustering on Extinction Coefficient Estimates
Y. Knyazikhin, A. Marshak, M.L. Larsen, and W.J. Wiscombe.
16th Annual Meeting of the ARM Science Team. Albuquerque, New Mexico. 27-31 March, 2006.

37. Reconsideration of Certain Aspects of the Z-R Problem
M.L. Larsen and A.B. Kostinski.
14th International Conference on Cloud Physics and Precipitation – ICCP 2004. Bologna, Italy. 13-18 July, 2004.

38. Exploring the Stochastic Micro-structure of Rain: Scale Dependence of Spatial Correlations
A.B. Kostinski, A.R. Jameson, and M.L. Larsen.
17th Conference on Hydrology. 83rd Annual Meeting of the American Meteorological Society. Long Beach, California. 9-13 February, 2003.

39. Spatial Correlations among Aerosol Particles
W. Cantrell, A.B. Kostinski, M.L. Larsen, and D. Harrington.
2002 Fall Meeting of the American Geophysical Union. San Francisco, California. 6-10 December, 2002.

40. Stochastic Micro-structure of Rain and Scale Dependence of Spatial Correlations
A.B. Kostinski, A.R. Jameson, and M.L. Larsen.
2002 Fall Meeting of the American Geophysical Union. San Francisco, California. 6-10 December, 2002.

41. Possible Implications of Droplet Clustering for Radiative Transfer in Clouds
A.B. Kostinski, M.L. Larsen, and R.A. Shaw.
11th AMS Conference on Cloud Physics, jointly with 11th AMS Conference on Atmospheric Radiation. Ogden, Utah. 3-7 June, 2002.

42. Quantifying Droplet Clustering in Clouds
M.L. Larsen, A.B. Kostinski, and R.A. Shaw.
11th AMS Conference on Cloud Physics. Ogden, Utah. 3-7 June, 2002.

Local/Regional Scientific Presentations and Workshops

1. Quantifying Rain Rate's Influence on Tipping Bucket Rain Gauge Accuracy
   G. Connors and M.L. Larsen
   25th Annual Allen Weber Mini-Technical Conference of the Palmetto Chapter of the American Meteorological Society. Columbia, SC. 6 March, 2019.

2. Sabbatical in the Snow: Results from a year spent investigating atmospheric microphysics at Michigan Technological University
   M.L. Larsen
   College of Charleston, Department of Physics and Astronomy Colloquium. College of Charleston. Charleston, SC. 17 January, 2019.

3. Rainfall Spatio-Temporal Variability Explored with a Dense Disdrometer Array
   M.L. Larsen
   Michigan Technological University, Department of Physics Colloquium. Michigan Technological University. Houghton, MI. 29 March, 2018.

4. Explorations of Raindrop Size Distribution Variability using a Dense Disdrometer Array
   M.L. Larsen
   College of Charleston, Department of Physics and Astronomy Colloquium. College of Charleston. Charleston, SC. 2 October, 2014.

5. Spatial Statistics through a 1-D Lens
   M.L. Larsen
   2012 Annual Meeting of the South Carolina Academy of Science. University of South Carolina-Aiken. Aiken SC. 13 April, 2012.

6. Characterizing Rainfall Variability on Small Spatial and Temporal Scales
   M.L. Larsen
   10th Annual Turkey Creek Watershed Initiative meeting. 5th Eco-Hydrologic Monitoring meeting. College of Charleston. Charleston, SC. 22 April, 2011.

7. Identification and Characterization of Small-Scale Rainfall Fluctuations
   M.L. Larsen
   2011 Annual Meeting of the South Carolina Academy of Science. South Carolina State University. Orangeburg, SC. 16 April, 2011.

8. Physics within the Pixel – Rainfall Variability on Unresolved Scales
   M.L. Larsen
   17th Annual Mini-Technical Conference of the Palmetto Chapter of the American Meteorological Society. Columbia, SC. 24 March, 2011.

9. Affordable Ways of Measuring Rain One Drop at a Time
   M.L. Larsen
   120th Annual Meeting of the Nebraska Academy of Sciences. Nebraska Wesleyan University. Lincoln, NE. 23 April, 2010.

10. Developing an Undergrad Research Program from Scratch: Perspective from Two Physicists
    M.L. Larsen and L. Kreminska
    Research at Primarily Undergraduate Institutions. University of Nebraska at Kearney. Kearney, NE. 6 March, 2009.

11. Have you been discrete enough? Describing where aerosol particles are and where they are not
    M.L. Larsen
    Remote Sensing Institute Seminar. Michigan Technological University. Houghton, MI. 17 March, 2008.

12. Spatial Statistics in Atmospheric Microphysics: An Introduction with Applications
    M.L. Larsen
    SciMath Colloquium. Kearney, NE. 11 October, 2007.

13. Being Discrete in a Crowd: Detection and Implications of Aerosol Clustering
    M.L. Larsen
    JCET Radiation Focus Group Seminar, Climate and Radiation Branch Seminar
    Greenbelt, MD. 23 July 2003.

Courses Taught

- Introductory Level
  - Earth Science† (F2007, F2008, S2009, F2009, S2010)
  - General Physics I (Calculus Based) (F2016, F2018)
  - General Physics II (Calculus Based) (F2020)
  - General Physics II Lab (Calculus Based) (F2010, S2011)
  - Honors Earth Science† (F2007, F2008, S2009, F2009, S2010)
  - Honors Physics of Sound and Music† (S2020)
  - Honors Physics I (Calculus Based) (F2015)
  - Honors Physics I Lab (Calculus Based) (F2015)
  - Honors Physics II (Calculus Based) (S2016)
  - Honors Physics II Lab (Calculus Based) (S2016)
  - Introductory Physics I (Algebra Based) (F2020)
  - Introductory Physics I Lab (Algebra Based) (F2011, F2018(x2))
  - Introductory Physics II (Algebra Based) (F2010, S2011, F2011, S2019)
  - Introductory Physics II Lab (Algebra Based) (S2011, F2011, S2012, F2013, S2014)
  - Meteorology† (S2008, S2009, S2010)
  - Physical Science (F2007, S2008, F2008, S2009)
  - Physics of Sound and Music† (S2012, S2014)
  - Physics of Sports† (S2013, F2014)
- Intermediate/Advanced Level
  - Atmospheric Physics† (F2010, F2012, F2014, F2016)
  - Classical Mechanics (S2013, S2014, S2015, S2017)
  - Cloud and Precipitation Microphysics† (F2019)
  - Computers in Physics† (S2010)
  - Electricity and Magnetism I / Electrodynamics I (F2012, F2013, F2019)
  - Fluid Mechanics (S2019)
  - Mathematical Methods in Physics/Methods of Applied Physics† (F2012, F2013, F2014, S2020)
  - Modern Physics (F2009, S2012, F2015, S2017, F2019)
  - Physics Problem Solving† (S2009, F2009, F2011, F2012, F2014, F2015, F2016, F2018, F2019, F2020)
  - Research Seminar (S2013, S2014, S2015, S2016, S2017, F2018, F2020)

† = Courses that were either designed or substantially modified by Michael Larsen.

Mentoring of Undergraduate/High School Student Research

Maroon names indicate College of Charleston Students
Blue names indicate University of Nebraska-Kearney Students
Orange names indicate Clemson University Students
Green names indicate Academic Magnet High School Students

Name and Dates(∗)(†)	Peer-Reviewed Journal Coauthorships	Professional Conference Coauthorships	Senior Capstone Project	Student Research Presentations
Trey Anderson, 2020-present	0	1	-	1
Carson Barber, 2019-present	0	1	-	1
Tobin Barrett, 2011-13	0	0	Yes	1
Josh Beck(†), 2009-10	0	0	N/A	2
Chris Blouin(†), 2018-present	1	1	-	7
(Dr.) Philip Boehner(†), 2010-12	1	0	Yes	6
Michael Brandon(†), 2019	0	0	-	1
Clarissa Briner(∗), 2012	1	0	-	2
Brianna Brunson, 2020-present	0	0	-	1
Susanna Brylawski, 2011-13	0	0	-	0
Kensley Burriss(†), 2015-16	0	0	-	1
Dawn Carillo, 2008-10	0	0	N/A	0
Jose Carillo, 2008-10	0	0	N/A	0
Michael Chute, 2012-13	0	0	Yes	2
Gavin Connors, 2018-2019	0	1	Yes	2
Eric Davidson, 2019-2020	0	0	–	0
Erin Deck(†), 2011	0	0	-	1
Grant Farmer, 2018-19	0	0	-	0
Benjamin Fullerton(†), 2009-10	0	0	N/A	4
Joerael Harris, 2011-14	0	1	Yes	4
Pearce Hamilton(†), 2019-present	1	2	-	3
David Hayes(†), 2009-10	0	1	N/A	1
Timothy Hayward(∗), 2013-14	1	0	-	3
Bridget Ierace, 2020-present	0	1	–	0
Cassidy Jenks, 2013-14	0	0	Yes	2
Parker LeClerc, 2018-19	0	0	Yes	1
Robert Lemasters(∗)(†), 2013-15	0	3	Yes	3
Abbie Long, 2019	0	0	N/A	2
Kyle McClary (Smydra)(†), 2008-10	0	0	N/A	4
Joshua Moravec(†), 2010	0	0	N/A	0
Monica Mullis(†), 2017-18	0	2	Yes	3
(Dr.) Joseph Niehaus, 2010-11	0	4	-	4
Matthew Noffke(∗)(†), 2008-10	1	1	N/A	7
Kate O'Dell(∗)(†), 2012-16	1	6	Yes	13

Notes: Some publications had multiple student authors and are thus multiply counted above.
(∗) indicates student won at least one research presentation award. (†) indicates student won at least one funding award.

NOTE – Continues on Following Page!

Mentoring of Undergraduate/High School Student Research (Continued)

Maroon names indicate College of Charleston Students

Blue names indicate University of Nebraska-Kearney Students

Orange names indicate Clemson University Students

Green names indicate Academic Magnet High School Students

Name and Dates(∗)(†)	Peer-Reviewed Journal Coauthorships	Professional Conference Coauthorships	CofC Senior Capstone Project	Student Research Presentations
Linsey Passarella, 2016	0	0	-	1
Alexis Payne(∗)(†), 2013-15	0	1	Yes	2
Danielle Policarpio(†), 2009-10	0	0	N/A	1
Hilary Powell(†), 2018-2019	0	0	-	1
David Ruwadi(†), 2011	0	0	-	1
Grant Saltzgaber(†), 2007-10	1	1	N/A	7
Adrian Sanabria-Diaz(†), 2009-10	0	0	N/A	0
Cameron Self, 2010-11	0	0	Yes	1
Jenn Smaroff, 2010-11	0	0	-	0
(Dr.) Conor Smith, 2010-11	0	0	Yes	2
(Dr.) Aaron Steele(†), 2008-09	1	3	N/A	4
Patricia (Annie) Steele, 2013-14	0	0	-	0
(Dr.) Jeremy Stromer(†), 2009	0	0	N/A	3
Joshua Teves(†), 2012-16	2	5	Yes	11
Derek Tuck, 2014-15	0	0	Yes	2
TOTALS				
College of Charleston (34 Students)	8	29	14	82
University of Nebraska at Kearney (13 Students)	3	6	N/A	33
Clemson University (1 Student)	0	0	N/A	2
Academic Magnet High School (1 Student)	0	0	1	1
Grand Total (49 Students)	11	35	15	118

Notes: Some publications had multiple student authors and are thus multiply counted above.
(∗) indicates student won at least one research presentation award. (†) indicates student won at least one funding award.

Mentorship and/or Formal Collaboration with Graduate Students while Employed at CofC

Name and Start Date	Academic Institution and Relationship	Peer-Reviewed Journal Coauthorships	Professional Conference Coauthorships
Jesse Anderson 2017	Michigan Tech Univ. Ph.D. Committee Member Collaborator/Coauthor	0	2
Thomas Cannon 2019	College of Charleston Masters Committee Member	0	0
(Dr.) Kamal K. Chandrakar 2017	Michigan Tech Univ. Collaborator/Coauthor	0	2
(Dr.) Neel Desai 2017	Michigan Tech Univ. Collaborator/Coauthor	0	1
(Dr.) Susanne Glienke 2017	Michigan Tech Univ. Johannes Gutenberg Univ. Max Planck Institute for Chem. Collaborator/Coauthor	2	1
Nurun Nahar Lata 2019	Michigan Tech Univ. Collaborator/Coauthor	1	2
(Dr.) Corey Packard 2017	Michigan Tech Univ. Ph.D. Committee Member Collaborator/Coauthor	2	1
Abu Sayeed Md Shawon 2018	Michigan Tech Univ. Ph.D. Committee Member Collaborator/Coauthor	0	2
Subin Thomas 2018	Michigan Tech Univ. Collaborator/Coauthor	1	0
Jiarun Zhou 2020	Clemson Univeristy Collaborator/Coauthor	1	1

Note: Some publications had multiple student authors and are thus multiply counted above.

Graduate Advisory Committee Work

Name	Academic Institution	Event	Date	Other Committee Members
Jesse Anderson	Michigan Tech Univ.	Ph.D. Topic Defense	5/2/19	Will Cantrell (Advisor) Jeremy Bos Raymond Shaw
Thomas Cannon	College of Charleston	Masters Thesis Defense	7/24/20	Jon Hakkila (Advisor) Ayman Hajja Amy Langville
(Dr.) Corey Packard	Michigan Tech Univ.	Ph.D. Thesis Defense	11/6/19	Raymond Shaw (Advisor) Jeremy Bos John Valenzuela
Abu Sayeed Md Shawon	Michigan Tech Univ.	Ph.D. Topic Defense	11/15/18	Will Cantrell (Advisor) Claudio Mazzoleni Raymond Shaw

Student Funding and Awards

- ➢ College of Charleston Summer Undergraduate Research with Faculty (SURF) Award
  2020 (Chris Blouin); 2020 (Pearce Hamilton)
- ➢ College of Charleston School of Science and Mathematics Summer Research Funding Award
  2019 (Chris Blouin)
- ➢ Department of Physics and Astronomy Summer Undergraduate Research Funding Award
  2019 (Michael Brandon); 2019 (Pearce Hamilton); 2019 (Hilary Powell); 2016 (Kensley Burriss)
- ➢ College of Charleston Research Presentation Grant
  2017 (Monica Mullis); 2015 (Katelyn O'Dell); 2014 (Robert Lemasters); 2014 (Joshua Teves)
- ➢ Department of Physics and Astronomy Outstanding Undergraduate Research Award
  2016 (Katelyn O'Dell)
- ➢ Department of Physics and Astronomy Outstanding Graduate Award
  2016 (Katelyn O'Dell); 2015 (Robert Lemasters)
- ➢ College of Charleston Chapter of ΦκΦ Undergraduate Research and Creative Works Award
  2016 (Joshua Teves; Honorable Mention)
- ➢ Awards for College of Charleston School of Science and Math Poster Session
  2016 Physics 1st Place (Joshua Teves); 2015 Physics 1st Place (Alexis Payne); 2012 Award of Merit (Clarissa Briner)
- ➢ NASA Space Grant Undergraduate Student Fellowship
  2015-2016 (Joshua Teves); 2010 (Kyle McClary); 2009 (Grant Saltzgaber)
- ➢ Horatio Hughes Academic Year Award
  2015-2016; 2014-2015 (Joshua Teves)
- ➢ ΣΞ Award for Outstanding Student Research at the South Carolina Academy of Science Annual Meeting
  2015 Earth Sciences, 1st Place (Kate O'Dell); 2015 Physics, 1st Place (Robert Lemasters); 2014 Physics, 1st Place (Timothy Hayward)
- ➢ Harry Ricker, Jr. Endowed Award
  2014-2015 (Katelyn O'Dell)
- ➢ CofC Major Academic Year Support Research (MAYS)
  2014-2015 (Alexis Payne); 2011-2012 and 2010-2011 (Philip Boehner)
- ➢ Horatio Hughes Summer Research Award
  2013 (Katelyn O'Dell)
- ➢ NASA Space Grant Students and Teachers in Climate Change Participants.
  2011 (Erin Deck); 2011 (David Ruwadi)
- ➢ UNK Summer Student Research Program (SSRP)
  2010 (Joshua Moravec); 2009 (Kyle McClary); 2009 (Jeremy Stromer); 2008 (Matthew Noffke)
- ➢ NASA Space Grant Student Researchers
  2009-2010 (Ben Fullerton); 2009-2010 (Kyle McClary)

Student Funding and Awards (Continued)

- UNK Undergraduate Research Fellows
  2009-2010 (Josh Beck); 2009-2010 (Matthew Noffke); 2009-2010 (Danielle Policarpio); 2009-2010 (Kyle McClary); 2009-2010 (Ben Fullerton); 2009-2010 (David Hayes); 2009-2010 (Joshua Moravec); 2009-2010 (Adrian Sanabria-Diaz); 2008-2009 (Matthew Noffke); 2008-2009 (Grant Saltzgaber); 2008-2009 (Aaron Steele)
- Best Undergraduate Student Paper at the 12th Annual High Plains Conference of the NWA/AMS 2008 (Matthew Noffke)

Professional Service

- **Service to the Public and the Scientific Community at large:**
  - Serves/served as peer-reviewer for 26 different journals/funding agencies:
    Advances in Water Research, *Aerosol Science and Technology*, *Applied Spectroscopy*, *Atmospheric Measurement Techniques*, *Atmospheric Research*, *Geophysical Research Letters*, *Hydrological Sciences Journal*, *IEEE Communications Letters*, *International Journal of Climatology*, *International Journal of Computers and Applications*, *Journal of Applied Meteorology and Climatology*, *Journal of Atmospheric and Oceanic Technology*, *Journal of Atmospheric and Solar-Terrestrial Physics*, *Journal of Geophysical Research – Atmospheres*, *Journal of Hydrology*, *Journal of Hydrometeorology*, *Journal of the Atmospheric Sciences*, *Journal of Scientific Research and Reports*, *Land Degradation and Development*, *Nonlinear Processes in Geophysics*, *Quarterly Journal of the Royal Meteorological Society*, *Quarterly Journal of Spectroscopy and Radiative Transfer*, *Science of the Total Environment*, *Theoretical and Applied Climatology*, *Water Resources Research*, and the National Science Foundation
  - Regularly serves as judge for various science fairs.
  - Regularly participates in a wide variety of departmental and Physics club outreach activities
  - Consulted with local legal office in regards to identifying weather conditions for eye-witness testimony (2014).
  - Consulted with local officials in reference to weather monitoring for Carriage Horse health issues (2011).

➢ **Institutional Service at the College of Charleston**

(Current)

- Academic Advisor for numerous students in Physics and Meteorology programs (2010-present)
- Atmospheric Physics/Meteorology Steering Committee (2010-present) [chair from 2011-2013, 2018-2019]
- College of Charleston Faculty Research and Development Committee (2018-present) [chair from 2019-present]
- Departmental Colloquium Committee (2019-present, 2010-2011)
- Departmental Handbook Editor (2020-present)
- Departmental Newsletter Editor (2019-present, 2017)
- Departmental Tenure/Promotion/Faculty Mentoring Committee (2016-present)
- Departmental Weekly Announcements Writer/Editor (2019-present, 2017)
- Meteorology Program Co-Coordinator (2010-present)
- Physics Major/Minor Coordinator (2019-present)
- Transfer Evaluator Physics (2013-present)
- Transfer Evaluator Atmospheric Physics and Meteorology (2010-present)
- William V. Moore Distinguished Teacher-Scholar Award selection committee (2020-present)

(Previous Contributions)

- Astrophysics Faculty Search Committee (2016-2017)
- Physics Curriculum Committee (2016-2017)
- Society of Physics Students Advisor / Sigma Pi Sigma Coordinator (2011-2017)
- Masters of Environmental Studies Fellowship Reviewer (2016)
- Visiting Assistant Professor of Astronomy Search Committee (2016)
- Visiting Assistant Professor of Physics Search Committee (2016)
- Acting Physics Department Chair (2015 [July 13-July 17])
- Associate acting Physics Department Chair (2014 [July 16-August 8])
- Physics Department Resources and Awards Committee Member (2012-2015) [chair from 2014-2015]
- College of Charleston Faculty Curriculum Committee Member (2014-2015)
- Summer Undergraduate Research with Faculty (SURF) Reviewer (2014,2012)
- Air Quality Faculty Search Committee (2013-2014)
- Atmospheric Physics Faculty Search Committee (2012-2013)
- Air Quality Faculty Search Committee (2012-2013)
- UCAR Affiliate Representative for CofC (2011-2013)
- Atmospheric Physics Faculty Search Committee (2011-2012)
- Atmospheric Physics Faculty Search Committee (2010-2011)

College of Charleston Student Presentations

(Primary author of all student presentations was an undergraduate student).

- Algorithms to Flag and Correct Faulty Data from a High Fidelity Rain Measurement Device
  C. Blouin. Mentor: M.L. Larsen.
  Department of Physics and Astronomy Colloquium Series, College of Charleston, September 17, 2020.
- Inter-comparison of rainfall measurements from 1- and 2-Dimensional Video Disdrometers
  T. Anderson. Mentor: M.L. Larsen.
  2020 Celebration of Summer Scholars. College of Charleston. August 24th, 2020.
- Prelminary analysis of bulk rain variables acquired from Laser Precipitation Monitors mounted at different heights on a vertical tower
  C. Barber. Mentor: M.L. Larsen.
  2020 Celebration of Summer Scholars. College of Charleston. August 24th, 2020.
- Properly resolving the effective measurement area in a high-fidelity rain measurement device
  C. Blouin. Mentor: M.L. Larsen.
  2020 Celebration of Summer Scholars. College of Charleston. August 24th, 2020.
- Simulations of light transmission through a virtual cloud
  C. Blouin. Mentor: M.L. Larsen.
  2020 Celebration of Summer Scholars. College of Charleston. August 24th, 2020.
- Subdividing rain drop arrivals into steady intervals
  B. Brunson. Mentor: M.L. Larsen.
  2020 Celebration of Summer Scholars. College of Charleston. August 24th, 2020.
- Uncertainty of Heterogeneous Freezing Rate of Water on Muscovite Mica
  P.O. Hamilton. Mentor: M.L. Larsen.
  2020 Celebration of Summer Scholars. College of Charleston. August 24th, 2020.
- Aerosol Particle Clustering: Making Particles and Measuring Them
  C. Blouin. Mentor: M.L. Larsen.
  2019 Summit of Scholars. College of Charleston, October 26th, 2019.
- Clustering of Laboratory Generated Glass Bead Aerosols with an Optical Particle Counter
  C. Blouin. Mentor: M.L. Larsen.
  2019 Celebration of Summer Scholars. College of Charleston, August 19th, 2019.
- An Improved Processing Algorithm for a High Resolution Rain Measurement Device
  C. Blouin and A. Long. Mentor: M.L. Larsen.
  2019 Celebration of Summer Scholars. College of Charleston, August 19th, 2019.
- Atomic Force Microscopy of Treated Mica Surfaces
  P. Hamilton, N. Lata, and W. Cantrell. Mentor: M.L. Larsen.
  2019 Celebration of Summer Scholars. College of Charleston, August 19th, 2019.
- Development of Calibration Methods for Single Drop Rain Sensors
  A. Long, P. Hamilton, C. Blouin, H. Powell, G. Connors, and M. Brandon. Mentor: M.L. Larsen.
  2019 Celebration of Summer Scholars. College of Charleston, August 19th, 2019.

- ➢ Rain Rate's Influence on Tipping Bucket Rain Gauge Accuracy
  G. Connors. Mentor: M.L. Larsen.
  College of Charleston Physics and Astronomy Department Colloquium. April 24th, 2019.
- ➢ Studies of Rain Rate's Influence on Tipping Bucket Rain Gauge Accuracy
  G. Connors. Mentor: M.L. Larsen.
  31st Annual College of Charleston Scientific Research Poster Session. April 18th, 2019.
- ➢ Statistical Analysis of Localized Temporal Clustering of Aerosol Particles
  M.S. Mullis. Mentors: M.L. Larsen and J. Niehaus.
  30th Annual College of Charleston Scientific Research Poster Session. April 12th, 2018.
- ➢ Time Series Analysis of Co-Located Micrometeorological Variables
  M.S. Mullis. Mentors: M.L. Larsen and J. Niehaus.
  - 2017 Colonial Academic Alliance Undergraduate Research Conference. Elon University, March 31 - April 1, 2017.
  - 29th Annual College of Charleston Scientific Research Poster Session. April 20th, 2017.
- ➢ Development of an Aerosol Particle Timing System
  K. Burriss and L. Passarella. Mentor: M.L. Larsen.
  2016 Celebration of Summer Scholars. College of Charleston, August 22, 2016.
- ➢ Reduction of measurement variability in precipitation events with uniform sampling
  K. O'Dell. Mentor: M.L. Larsen.
  College of Charleston Physics and Astronomy Department Research Award Nominee Talks. April 21st, 2016. *Winner of 2016 Outstanding Undergraduate Research Award in Physics*.
- ➢ Raindrop statistics on sub-minute and sub-kilometer scales
  J.B. Teves. Mentor: M.L. Larsen.
  College of Charleston Physics and Astronomy Department Research Award Nominee Talks. April 21st, 2016.
- ➢ Investigation of a New Sampling Methodology to Improve Accuracy of Z-R Relationships
  K. O'Dell. Mentor: M.L. Larsen.
  28th Annual College of Charleston Scientific Research Poster Session. April 14th, 2016.
- ➢ Using Two-Dimensional Video Disdrometer Samples to Determine Spatial Relationships in Rainfall
  J.B. Teves. Mentor: M.L. Larsen.
  28th Annual College of Charleston Scientific Research Poster Session. April 14th, 2016. *Awarded best Physics poster award.*
- ➢ Reduction of Measurement Variability in Precipitation Events with Uniform Sampling
  K. O'Dell. Mentor: M.L. Larsen.
  NCUR 30th Annual Conference. University of North Carolina at Asheville, April 7-9 2016.
- ➢ Single-Instrument Observations of Temporo-Spatial Variability in Rainfall
  J.B. Teves. Mentor: M.L. Larsen.
  NCUR 30th Annual Conference. University of North Carolina at Asheville, April 7-9 2016.

➢ A Study of Realistic Sampling Variabilty Effects on Precipitation Measurements
K. O'Dell. Mentor: M.L. Larsen.

- 2015 Celebration of Summer Scholars. College of Charleston, August 24, 2015.
- Department of Physics and Astronomy Departmental Colloquium. College of Charleston, September 17, 2015.

➢ Calibration strategies for a tipping bucket rain gauge
J.B. Teves. Mentor: M.L. Larsen.
2015 Celebration of Summer Scholars. College of Charleston, August 24, 2015.

➢ Exploring Raindrop Arrival Time Correlations via a Drop Size Dependent Pair-Correlation Function
R. Lemasters. Mentor: M.L. Larsen

- 2015 Annual Meeting of the South Carolina Academy of Science. Furman University, April 11th, 2015. *Winner of ΣΞ best Physics presentation award*.
- 27th Annual College of Charleston Scientific Research Poster Session. April 16th, 2015.

➢ Erroneous Drop Sizing in Impact Disdrometers: Possible Effects on Z-R Relationships
K. O'Dell. Mentor: M.L. Larsen.

- 2015 Annual Meeting of the South Carolina Academy of Science. Furman University, April 11th, 2015. *Winner of ΣΞ best Earth Science presentation award*.
- 27th Annual College of Charleston Scientific Research Poster Session. April 16th, 2015.

➢ Diurnal Evolution of the Statistical Structure of Near Surface Wind
A.L. Payne. Mentor: M.L. Larsen.

- 2015 Annual Meeting of the South Carolina Academy of Science. Furman University, April 11th, 2015.
- 27th Annual College of Charleston Scientific Research Poster Session. April 16th, 2015. *Awarded best Physics poster award.*

➢ Using an Accumulation Contribution Fraction to Investigate Rainfall
J.B. Teves. Mentor: M.L. Larsen.

- 2015 Annual Meeting of the South Carolina Academy of Science. Furman University, April 11th, 2015.
- 27th Annual College of Charleston Scientific Research Poster Session. April 16th, 2015.

➢ Design and Testing of a Raindrop Velocimeter
D. Tuck. Mentor: M.L. Larsen.

- 2015 Annual Meeting of the South Carolina Academy of Science. Furman University, April 11th, 2015.
- 27th Annual College of Charleston Scientific Research Poster Session. April 16th, 2015.

➢ Investigating Possible Fractal Behavior in Raindrop Arrivals
R. Lemasters. Mentor: M.L. Larsen.
2014 Celebration of Summer Scholars College of Charleston, August 18, 2014.

➢ Identification of Rain Events: Why Definitions Matter
J.B. Teves. Mentor: M.L. Larsen.
2014 Celebration of Summer Scholars. College of Charleston, August 18, 2014.

➢ Exploration of Links Between Radar and Automated Weather Station Data
J.C. Harris. Mentor: M.L. Larsen.

- 2014 Annual Meeting of the South Carolina Academy of Science. Trident Technical College, April 5th, 2014.
- 26th Annual College of Charleston Scientific Research Poster Session. April 17th, 2014.

➢ Exploration of Fractal Tools to Characterize Statistical Systems
T. Hayward. Mentor: M.L. Larsen.

- 2014 Annual Meeting of the South Carolina Academy of Science. Trident Technical College, April 5th, 2014. *Winner of the ΣΞ best Physics presentation award.*
- 26th Annual College of Charleston Scientific Research Poster Session. April 17th, 2014.

➢ Statistical Analysis of Rain Arrival Times
C. Jenks. Mentor: M.L. Larsen.

- 2014 Annual Meeting of the South Carolina Academy of Science. Trident Technical College, April 5th, 2014.
- 26th Annual College of Charleston Scientific Research Poster Session. April 17th, 2014.

➢ Development of a Z-R Relationship for a Local Automated Weather Station
K. O'Dell. Mentor: M.L. Larsen.

- 2014 Annual Meeting of the South Carolina Academy of Science. Trident Technical College, April 5th, 2014.
- 26th Annual College of Charleston Scientific Research Poster Session. April 17th, 2014.

➢ Developing an Automated Processing Pipeline for Proprietary Rain Measurement Equipment
J. Teves. Mentor: M.L. Larsen.

- 2014 Annual Meeting of the South Carolina Academy of Science. Trident Technical College, April 5th, 2014.
- 26th Annual College of Charleston Scientific Research Poster Session. April 17th, 2014.

➢ Investigation of Radar-Inferred Rain Accumulation Variability
J.C. Harris, K. O'Dell, and J.B. Teves. Mentor: M.L. Larsen

- 38th Annual Meeting of the National Weather Association. North Charleston, South Carolina. October 12-17, 2013.
- 2013 Celebration of Summer Scholars. College of Charleston, August 19th, 2013.

➢ Identifying and Evaluating a Site-Specific Z-R Relationship
K. O'Dell. Mentor: M.L. Larsen.

- College of Charleston Physics Department Colloquium October 3rd, 2013.
- 2013 Celebration of Summer Scholars. College of Charleston, August 19th, 2013.

➢ Aerosol Concentration Fluctuations
M. Chute. Mentor: M.L. Larsen.

- 2013 Annual Meeting of the South Carolina Academy of Science. Benedict College, April 13th, 2013.
- 25th Annual College of Charleston Scientific Research Poster Session. April 18th, 2013.

➢ Infinitesimally small radar heat signatures in greater Law Vegas.
T. Barrett. Mentor: M.L. Larsen.
Winter day conference of the American Scientific Affiliation. Azusa Pacific University, January 12, 2013.

➢ Simulations of Radiative Transfer in Strictly Absorbing Atmospheric Media
P. Boehner. Mentor: M.L. Larsen.
24th Annual College of Charleston Scientific Research Poster Session. April 19, 2012.

➢ Applications of Computational Stochastic Geometry to the Determination of Cloud Structure
C. Briner. Mentor: M.L. Larsen.

- 2012 Annual Meeting of the South Carolina Academy of Science. University of South Carolina-Aiken. April 14, 2012.
- 24th Annual College of Charleston Scientific Research Poster Session. April 19, 2012. *Winner of the Award of Merit*

➢ Absorption and Scattering in Correlated Random Media
P. Boehner. Mentor: M.L. Larsen.

- 2012 Annual Meeting of the South Carolina Academy of Science. University of South Carolina-Aiken. April 14, 2012.
- 2011 Fall Joint Meeting of the NCS-AAPT, SACS-AAPT, and the SPS. UNC-Asheville. November 18-19, 2011.
- 2011 Celebration of Summer Scholars. College of Charleston. August 22nd, 2011.
- 2011 Annual Meeting of the South Carolina Academy of Science. South Carolina State University. April 16, 2011.
- 23rd Annual College of Charleston Scientific Research Poster Session. April 21, 2011.

➢ Statistical structure of turbulence
C. Self. Mentor: M.L. Larsen
2011 Celebration of Summer Scholars College of Charleston. August 22nd, 2011.

➢ Using Cloud Cover as an Indicator of Regional Climate Change
E. Deck and D. Ruwadi. Mentor: M.L. Larsen.
2011 NASA GIST-Climate Change Symposium. College of Charleston. August 20th, 2011.

➢ Models of Inhalation Dosage
J. Niehaus. Mentor: M.L. Larsen.
2011 Annual Meeting of the South Carolina Academy of Science. South Carolina State University. April 16, 2011.

➢ Benchmarking Commercial Disdrometers to Aid in Characterizing Natural Rainfall Variability
C. Smith. Mentor: M.L. Larsen.

- 2011 Annual Meeting of the South Carolina Academy of Science. South Carolina State University. April 16, 2011.
- 23rd Annual College of Charleston Scientific Research Poster Session. April 21, 2011.