Geophysical Research Abstracts Vol. 20, EGU2018-3422, 2018 EGU General Assembly 2018 © Author(s) 2018. CC Attribution 4.0 license.



A Dense Disdrometer Network in the Southeastern United States: Results and New Directions

Michael L. Larsen (1), Arthur B. Jameson (2), Alexander B. Kostinski (3), and Joseph Niehaus (1) (1) Department of Physics and Astronomy, College of Charleston, Charleston, SC, USA (larsenml@cofc.edu), (2) RJH Scientific, El Cajon, CA, USA, (3) Department of Physics, Michigan Technological University, Houghton, MI, USA

A dense disdrometer array was constructed near Charleston, South Carolina, USA in late 2012 with the explicit mission of characterizing rain variability on spatial scales smaller than a kilometer and on temporal scales shorter than an hour. The array initially included 22 disdrometers (including a 2DVD) and is now in the process of being expanded to 25 disdrometers (including 2 2DVDs and the first ever two commercially purchased 1DVDs). Data gathered from this array has previously revealed interesting results related to raindrop fall speeds, rain event characterization, disdrometer sampling considerations, and raindrop size distribution and accumulation variability. Here, we summarize the array design, present some of the major findings of the previous 5+ years, and discuss future directions of scientific inquiry.