



Design and field test of a robust acoustic disdrometer for distributed rainfall observations

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With a special focus on robust design, telemetric solutions and decreasing cost, an acoustic disdrometer has been developed that opens up the possibility to use networks of disdrometers for distributed rainfall observations at reasonable budgets. The disdrometer works on the principle of translating the impact energy of drops into drop sizes and thus is able to measure both drop size distributions and bulk rainfall variables such as rain rates and radar reflectivity factors. The disdrometer was evaluated at the test site of the Royal Netherlands Meteorological Institute (KNMI) where its measurements were compared to other commercially available disdrometers as well as a calibrated electrical rain gauge