



Space-time variability of raindrop size distributions along a 2.2 km microwave link path

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The Wageningen Urban Rainfall Experiment (WURex14-15) was dedicated to address several errors and uncertainties associated with quantitative precipitation estimates from microwave links. The core of the experiment consisted of three co-located microwave links installed between two major buildings on the Wageningen University campus, approximately 2.2 km apart: a 38 GHz commercial microwave link, provided by T-Mobile NL, and 26 GHz and 38 GHz (dual-polarization) research microwave links from RAL. Transmitting and receiving antennas were attached to masts installed on the roofs of the two buildings, about 30 m above the ground. This setup was complemented with a Scintec infrared Large-Aperture Scintillometer, installed over the same path, an automatic rain gauge, as well as 5 Parsivel optical disdrometers positioned at several locations along the path. Temporal sampling of the received signals was performed at a rate of 20 Hz. The setup was being monitored by time-lapse cameras to assess the state of the antennas as well as the atmosphere. Finally, data were available from the KNMI weather radars and an automated weather station situated just outside Wageningen. The experiment has been active between August 2014 and December 2015. We present preliminary results regarding the space-time variability of raindrop size distributions from the Parsivel disdrometers along the 2.2 km microwave link path.