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Key parameters for the tomographic reconstruction of rainfall fields

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In this contribution, we present the results of the simulations carried out during the testing phase of the tomographic reconstruction algorithm, developed in the framework of the MOPRAM project. To this purpose, we exploited a large data set of radar rain maps (assumed as ground truth) and assumed a realistic distribution of microwave links over the area of interest. We considered both stratiform and convective precipitation events, and evaluated the quality of the reconstructed rain field as a function of the number of links and base functions. In order to feed the algorithm with realistic CML data, we simulated different sampling times and quantization levels of the "measured"Received Signal Strength Indicator (RSSI).

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