

Particle Image Velocimetry (PIV) for Cloud Droplets – Laboratory Investigations

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Interaction between small-scale turbulence and cloud particles is a key issue in warm rain formation mechanism, which is an important meteorological and climatological challenge. We investigate this interaction observing turbulent motion of cloud droplets in a laboratory chamber (1 m deep, 1 m wide and 1.8 m high) by means of Particle Image Velocimetry (PIV). A specially developed multi-scale PIV algorithm is used to retrieve two components of velocity of cloud droplets.

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