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Field measurements of cloud droplet dynamics[1] JAN MOLACEK, GHOLAMHOSSEIN BAGHERI, AUGUSTINUS BERTENS, Max Planck Institute for Dynamics and Self-Organization, HAITAO XU, Tsinghua University, EBERHARD BODENSCHATZ, Max Planck Institute for Dynamics and Self-Organization
— We present an in-situ experiment investigating the dynamics of cloud droplets and its dependence on the turbulent flow properties. This dynamics plays a major role in the rate of growth of cloud particles by coalescence and the resulting precipitation rate. The experiment takes place at a mountain research station at an altitude of 2650m, and will make use of a movable platform that can travel with the mean wind velocity. Here we present preliminary results using a stationary setup. Simultaneous measurements of other variables such as droplet size distribution and humidity fluctuations are done in order to develop a more complete picture of the microphysical conditions within clouds.

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