

## **Mapping the life of a dust particle from the desert to clouds with in-situ observations**

### **Abstract**

Already early in my studies of meteorology at the Karlsruhe Institute of Technology, Germany, I had a strong interest in the formation of clouds and the influence of aerosol particles on cloud microphysics. This brought me to investigate in my master thesis, PhD and postdoctoral time the temporal and spatial variability of aerosol particles that later trigger ice formation in the atmosphere. For this, I performed in-situ measurements in various locations in Europe as well as laboratory experiments with selected aerosol samples. In my work now at ISAC, I focus on the detection of Saharan dust aerosol transported over the Mediterranean Sea to Italy making use of 20 years of in-situ measurements at the Monte Cimone.

Within the seminar I will give an overview on dust emission measurements in a desert, the atmospheric transport of dust and its capability of forming ice in clouds by linking my past and present work.