



CNRM, UMR 3589

SEMINAIRE CNRM

lundi 23 novembre 2023 à 10h

Aerosol-radiation and aerosol-cloud interactions constrained with process studies and long-term observations

par Martin GYSEL

(PSI,Suisse)

en salle Joël Noilhan

https://bluejeans.com/731672209/5597

Résumé:

Atmospheric aerosol particles are known to cause adverse health impacts and affect weather and climate through aerosol-radiation and aerosol cloud interactions. On global scale, anthropogenic aerosol partially masks global warming driven by greenhouse gases, and they remain a major source of uncertainty for e.g. predictions of precipitation changes in a warming climate. Challenges arise due to the variety of sources, the large number of relevant properties, the complexity of aerosol processes, and the high spatial and temporal variability of atmospheric aerosol. An overview of our experimental research in laboratory and field to study aerosol environmental impacts will be provided. The focus will be on the life cycle of black carbon with trend analyses, light-absorption, cloud droplet formation, and remote sensing retrievals as examples.