

The day of the attendees will be built on four sessions. A first lecture session will quickly introduce terahertz technology focusing on terahertz spectroscopy and then the basics of its including the systems used and the methods developed to get information from the recorded data. This knowledge will then be applied during three hands-on training each of them focusing on samples of different state, gaseous, solid, and liquid. For the gas phase experiments, we will show how THz technology is able to sense small amount of organic volatile compounds specifically important for environment, health or industrial matters. For the liquid phase experiments, we will analyze mix of solvent showing how Terahertz spectroscopy can probe the ratio of solvent and be very sensitive to minute amount of impurity in industrial oil. Finally, for the solid phase experiments we will show how to extract the thickness of a thin film or thin layer using time domain terahertz spectroscopy but also how to probe the carrier density of very low doped semiconductor sample