

Tera-Days: Attività INFN e prospettive per la radiazione THz e le sue applicazioni



SAPIENZA
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THz applications of Synchrotron Radiation at the Sinbad Infrared beamline at Dafne.

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The LFN DaFne storage ring is a powerful source for Synchrotron Radiation (SR) in the FAR IR/THz domain (20 μ m-1mm). The brilliance of SR in this region is up to three order of magnitude higher than standard sources, opening the possibility to perform experiment in the solid, liquid and gas phase with application from material science to biology and chemistry. Case studies of experiments that are currently performed at Sinbad are presented.

Combining the properties of THz and Near IR radiation, together with MIR molecular spectroscopy (2-20 μ m), new perspectives of applications for biomedical tissues analysis and skin cancer diagnosis are explored.

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Session Classification: THz sources and new acceleration techniques