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## The LNF IR-THz beamline @ DAΦNE: experimental set-ups and perspectives

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The INFN-LNF DAΦNE storage ring produces a powerful source of Synchrotron Radiation in the THz range [1]. The brilliance of SR in the THz domain is up to three orders of magnitude with respect to conventional sources (i.e. mercury lamps), as shown in Figure 1, and the flux increases with the electron current stored. These aspects permit to perform experiments in several field from material science to biology and chemistry and offer the possibility to analyze samples in solid, liquid and gas phases [2-8]. Experimental set-ups available at SINBAD beamline and applications are presented. Moreover, perspectives of the Terahertz (THz) technology applied on cultural heritage field will be described [9,10].

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