

## Tera Fermi

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A THz beamline at the Fermi FEL TeraFermi will be a THz beamline for pump-probe studies on the femtosecond time-scale, to be constructed at the FERMI Free Electron Laser facility. The beamline will make use of the coherent transition radiation emitted by the electrons already spent from the FEL undulators, before being damped. This will result in short, coherent, high power THz pulses to be used as a pump beam, in order to modulate structural properties of matter. The electronic properties will be probed by means of infrared spectroscopy from THz to visible. We will discuss the present status of the project, and examine strengths and criticalities of our approach.