

# ATTRACT TWD Symposium: Trends, Wishes and Dreams in Detection and Imaging Technologies



Contribution ID: 121

Type: **not specified**

## Plasma driven UV FEL test experiment

This work will be performed in collaboration with DESY (Germany) and UCLA (USA)

### Summary

A high quality electron beams produced by a plasma accelerator module at SPARC\_LAB could be injected in in a short period undulator of new type, for example a RF or Optical undulator, thus enabling the investigation of the performances of a compact UV FEL source, an extremely important contribution towards the V generation light sources development. INFN will contribute with its expertise in the characterization of the time duration and intensity of the pulses with cross correlation experiments. Benchmark experiments of non-linear optics in isolated samples and pump-probe measurements on nanoparticles and biological samples will be performed to compare the performances of the radiation produced with the typical ones of fs table-top lasers.

**Author:** Dr ANANIA, Maria Pia (INFN-LNF)

**Presenter:** Dr ANANIA, Maria Pia (INFN-LNF)