



Contribution ID: 47

Type: **talk**

Temporal and spectral characterization of the ultra-short high power laser pulses.

Wednesday, 16 September 2015 16:30 (20 minutes)

One of the most promising techniques about characterization of the ultra-short high power laser pulses is GRENOUILLE, that simplifies the set up compared to other popular full intensity-phase measurement technique. This new technique has many advantages: it is considerably more sensitive, extremely simple to set up and align. It provides us a trace that yields the full pulse intensity and phase, a spectrogram, that involves temporal and frequency resolution simultaneously. We present the development of the analysis software for data acquired by a GRENOUILLE. The software has been tested on experimental images acquired in the Front-End at low-power and in the Target Area Petawatt (full power) at the Vulcan Facility (RAL). This innovative diagnostic will be fruitfully employed on the FLAME laser at LNF-INFN.

Primary author: Mr GALLETTI, Mario (Università di Pisa)

Co-authors: GIULIETTI, Danilo (PI); Dr GALIMBERTI, Marco (Science and Technology Facilities Council)

Presenters: GIULIETTI, Danilo (PI); Dr GALIMBERTI, Marco (Science and Technology Facilities Council); Mr GALLETTI, Mario (Università di Pisa)

Session Classification: WG7 - Laser technology for advanced accelerators

Track Classification: WG7 - Laser technology for advanced accelerators