

## Séminaire LAL

## Massimo Ferrario (INFN - LNF)

Mardi 7 mars 2017 à 11h00

From SPARC\_LAB to EuPRAXIA

On the wake of the results obtained so far at the SPARC\_LAB test-facility in Frascati, we are currently investigating the possibility to design and build a new multi-disciplinary user-facility, equipped with a soft X-ray Free Electron Laser (FEL) driven by a ~1 GeV high brightness linac based on plasma accelerator modules. It is in fact widely accepted by the international accelerator scientific community that a fundamental milestone towards the realization of a plasma driven future Linear Collider (LC) will be the integration of the new high gradient accelerating plasma modules in a FEL user facility (see the H2020 approved Design Study EuPRAXIA). This fundamental goal will be integrated in the LNF facility by using a X-band linac and/or the high power laser FLAME to drive Plasma Oscillations in the accelerator module.

In this talk we report about the recent results obtained at the SPARC\_LAB facility and the on going design study of the new facility named EuPRAXIA@SPARC\_LAB.

**Salle 101** - Bât. 200, Orsay

Thé et café seront servis 15 mn avant le séminaire Organisation : Reisaburo Tanaka (LAL) - seminaires@lal.in2p3.fr - http://www.lal.in2p3.fr



