



Contribution ID: 138

Type: **Invited talk**

PALLAS, a laser-plasma injector test facility, development status

Wednesday, 21 September 2022 17:15 (15 minutes)

The prototyping accelerator based on laser-plasma technology (PALLAS) project is aiming to build a laser-plasma injector accelerator (LPI) test facility with the aim to deliver within a few years electron beams of 150-250 MeV, < 5% energy dispersion, >30 pC, <1 mm.mrad emittance beam at 10 Hz with control and stability comparable with RF accelerator. The project approach is based on three axis: advanced laser control, plasma target development and compact electron beam transport and characterization. After a quick overview of the installation progress, updates in laser control will be given. Recent results on plasma gas cell type targets development and testing for localized ionization injection and laser-plasma injector modelling will be reported. The recent progress in the electron beam characterization line will be discussed.

Primary author: Dr CASSOU, Kevin (Laboratoire de l'Accélérateur Linéaire)

Co-authors: GONNIN, Alexandre (IJCLab); BECK, Arnaud (Laboratoire Leprince Ringuet); SPECKA, Arnd (LLR - Ecole Polytechnique - CNRS/IN2P3); LUCAS, Bruno (IJCLab); Mrs GUYOT, Coline (CNRS/IN2P3 - IJClab); Mr DOUILLET, Denis (CNRS/IN2P3 - IJClab); BAYNARD, Elsa (IJCLab); Mr JULES, Eric (CNRS/IN2P3 - IJClab); LEGAY, Eric (IN2P3); MASSIMO, Francesco (Maison de la Simulation - CEA); Mr IAQUANELLO, Gregory (CNRS/IN2P3 - IJClab); Mr KANE, Gueladio (CNRS/IN2P3 - IJClab); DEMAILLY, Julien (IJCLab); Mr MALKINSKI, Konrad (CNRS/IN2P3 - IJClab); PITTMAN, Moana (IJCLab); Mr NEVEU, Olivier (Université Paris Saclay - IJClab); Dr GAURON, Philippe (CNRS/IN2P3 - IJClab); DROBNAIK, Pierre (IJC Lab); KAZAMIAS, Sophie; KUBYTSKYI, Viacheslav (Postdoctoral Fellow); BRUNI, christelle (CNRS/IN2P3 - IJClab)

Presenter: Dr CASSOU, Kevin (Laboratoire de l'Accélérateur Linéaire)

Session Classification: Special Topic