

**Call for job at the Centro de Laseres Pulsados.
Abstract IMPULSE project (Call 153/21)
(High-repetition rate metrology)**

The Centro de Laseres Pulsados (CLPU) in Salamanca hosts one of the most powerful Lasers in the world (the most powerful Laser in Spain) called VEGA. VEGA is a Ti:Sa laser system reaching 1PW power with laser intensities up to 10^{21} W/cm² with repetition rate up to 1Hz. The system VEGA is fully operating, and several experimental results are already published (<https://www.clpu.es/science/publications>).

The CLPU started a collaboration with the leading project in Europe Called Extreme Light Infrastructure (ELI) with the aim to build different infrastructures with laser systems characterized by unreached parameters at the forefront of the present state of the art capabilities, such as power (~ 10 PW), repetition rate, photon energy, pulse duration.

The project, called IMPULSE “Integrated Management and reliable oPerations for User-based Laser Scientific Excellence”, is supported by the Association Internationale Extreme-Light-Infrastructure Delivery Consortium (ELI-DC) AISBL and involves the mayor actors in the field of high power science in Europe including the CLPU. IMPULSE is included in the EU call INFRADEV, supported by Horizon 2020 programme.

The **primary scientific aim of ELI within the IMPULSE project** is to implement standards and practices related to supporting the user experience and the establishment of ELI as the most advanced laser-driven science facility in the world. ELI will work with partners from Laserlab Europe and beyond in the context of this project to benchmark and implement best practices. There will also be extensive outreach activities to anchor the success of ELI’s scientific program with a broad community

Under the framework of IMPULSE, the CLPU is searching for a motivated scientist dedicated to the development of such project.

- The duration of the contract is 3 years starting from the 1st of May 2021.
- The gross salary/year can range from 25.000 y 28.000 €

The full call is published at the CLPU website, under the job section (<https://www.clpu.es/about-us/job-opportunities>) **with reference number 153/21.**

The successful candidate shall work at the CLPU, with the goal to develop laser, plasma and particle beams metrology standards at high repetition rate in the context of high power laser experiments performed at CLPU and in preparation of the ELI facility operation.

The main activities to be carried out are outlined hereafter:

- Collaborate in the identification and analysis of the various experimental modes of operation and of the systems devoted to the alignment in connection with intense lasers as part of the project.
- Collaborate in the study and development of metrology techniques and working procedures at high repetition rate for the laser and for its secondary sources within the framework of the project
- Collaborate in the experimental campaigns carried out within the scope of the project.
- Develop of technical scientific documentation within the framework of the project, as well as the preparation, search and request for external funding to expand and consolidate the actions included in it.
- Participate in the design/dimensioning and preparation phases of experimental campaigns in relation to the project objectives.
- Contribute to the definition of the experimental standards of the center that allow for an advance towards the “user based scientific excellence” objective of the project.
- Preparation of scientific publications and presentations for congresses in the framework of the project.

Requirements

- Physics university degree and Official postgraduate Master related to the functions of the job position
- At least one year of proved experience in experimental physics related to the functions of the post job
- Language proficiency in English, equivalent to B1 of the Common European Framework of Reference for Languages

Informative note without legal validity