

Post–Doctoral Research Assistant

at the **Extreme Light Infrastructure – Nuclear Physics (ELI-NP)**

Research Activity 5 – Experiments with Combined Laser and Gamma Beams

Laser Physics, Optics

Job Description and Candidate’s Profile

Scope of work

Post-doctoral research assistants will ensure part of the scientific expertise needed to prepare the ELI-NP experiments. Post-doctoral research assistants will pursue their activity in the working groups led by Research Scientists. Personal initiative concerning scientific research will be also encouraged.

Main tasks:

- Improving scientific knowledge and competencies in ELI-NP research topics;
- Performing tasks within Research Activity 5 related to one or more of the following subjects: Laser physics, optical systems for experiments with short pulse lasers, diagnostics for the laser beam and experiments;
- Participating in scientific meetings and conferences;
- Participating in the implementation of the setups foreseen in the Technical Design Reports (TDRs) for ELI-NP experiments;
- Participating in specific activities during the installation and commissioning phase;
- Providing support for the preparation of the technical documents for the acceptance of Project’s deliverables;
- Actively and efficiently involving in the dialog and communication within the ELI-NP team and promoting a harmonious collaboration framework.

Professional background:

- PhD degree in laser physics or optical systems for laser applications;
- Hands-on experience in laser systems development, OPCPA, or optical-optical synchronization of laser oscillators and amplifiers to fs accuracy or ultrashort pulse diagnostics;
- Fluency in English, both written and spoken;
- Goal-oriented attitude;

- Taking ownership of handled tasks;
- Willingness to continuously improve and develop new skills;
- Proven teamwork experience, communication and efficient collaboration skills;
- Availability to travel and perform work stages abroad;

Would be a plus, but at least one required:

- Experience in numerical PIC simulations for laser acceleration processes in gas targets;
- Familiar with experiments (setups, detectors, beam optimization) with short pulse lasers;
- Experience with optics software (such as ZEMAX), design and optimization of optical systems for laser beam propagation.

Working arrangements / Conditions of employment:

- Full-time position based in Bucharest–Magurele, Romania, for 1 year with the possibility of extension;
- Included: private medical coverage, paid annual leave;
- Motivating salary, at European level, depending on qualifications and experience;
- The candidate should be available to travel abroad for scientific collaboration at various research infrastructures, for part of the time.

Applications:

- Applications shall be accompanied by the documents requested in the Rules of Selection for this position.
- Applications shall be sent to the Human Resources Department at human.resources@eli-np.ro.