

ELI-HU Research and Development Non-Profit Limited Liability Company is announcing

Job opening in a Research Fellow position

Location:	Extreme Light Infrastructure Attosecond Light Pulse Source Szeged, Hungary
Staff Category:	Staff Member
Contract Type:	Fixed Term
Gradings:	Research Fellow (one position)
Closing Date:	Open until filled
Reference Number:	PaTHz_EA

The Hungarian ELI: The Attosecond Light Pulse Source (ALPS)

The first civilian large-scale research facility based on high-power lasers, the Extreme Light Infrastructure (ELI), is to be constructed with international cooperation at three locations with a coordinated management and research strategy. The Attosecond Light Pulse Source (ALPS) research centre in the final stages of construction in Szeged, Hungary will be devoted to study electron dynamics on the femto, attosecond scale in atoms, molecules, plasmas and biological samples.

The primary mission of the ELI-ALPS research facility in Szeged is to make a wide range of ultrafast light sources accessible to users of the international scientific community, with special consideration to coherent extreme-ultraviolet (XUV) and X-ray radiation, and to attosecond pulses. The secondary mission of the facility is to contribute to the scientific and technological development towards high average power high peak intensity lasers.

ELI-HU Non-Profit Research and Development Ltd. coordinates the preparation, construction and operation of ELI-ALPS, an international laser research center.

Job description:

The applicant will be assigned to the Electron Acceleration Group of the Particle and THz Sources Division. The Group's duties mainly consist of developing and implementing the laser driven electron acceleration programme at ELI-ALPS, whereby acceleration will be via the Laser Wakefield Acceleration mechanism (LWFA). The applicant is expected to assist in the development of the LWFA electron beamlines and their applications through

- precursor experiments on LWFA in partner laboratories
- design/development of instrumentation/diagnostics with their respective control software, relevant to the electron beamline
- experimental data analysis
- electron beamline applications' related tasks

Moreover, the applicant is expected to participate in preparation of peer-reviewed journal publications as well as in conferences/workshops/meetings and other activities in line with the duties of the Group and the Division.

Requirements from the applicants:

The applicants are expected to hold a PhD degree or have submitted their PhD thesis or have at least 10 years of research experience in one of the following fields

- intense laser plasma interactions, i.e. LWFA
- LWFA experiments
- LWFA related electron diagnostics and control software
- LWFA related applications

The following additional skills/experience will be highly valued

- PIC simulations on LWFA
- 3D CAD design
- analytical/numerical and programming experience (Matlab, LabVIEW, Python)

The applicants must have a high quality publication record in peer reviewed journals commensurate with the career stage. Moreover, they must demonstrate good written and verbal English communication skills and should have excellent interpersonal skills as it will be required to interact with an international user community.

We offer:

- Competitive (EU-level) salary
- Attractive fringe benefits (for full time employment only)
- Challenging job with carrier opportunities
- Pleasant working environment in a brand new international infrastructure

The successful applicant may have a duty to do part of their research and development work outside Hungary at contracted collaborators and partners of ELI-HU Non-Profit Ltd., as part for their specific work tasks.

The application must contain:

- A Europass curriculum vitae or detailed scientific curriculum vitae
- Full list of publications – highlighting the list of articles published in refereed journals and containing the following data:
 - h-index
 - cumulative impact factor (calculated by summing of impact factors of journals characteristic for the year of publication of each article)
 - number of citations without self-citations
- A motivation letter
- The name of two scientific supervisors or professors, who could give expert opinion about the applicant's skills
- The applicant's postal address and other contact data (phone, fax, e-mail)

Schedule:

- Application deadline: continuous, valid until withdrawn
- Foreseeable date of the interview for shortlisted applicants: within 6-10 weeks of application submission

For further information on ELI-ALPS, please visit the ELI-ALPS website (<http://www.eli-alps.hu>), while for position related information, please contact Dr. Christos Kamperidis (christos.kamperidis@eli-alps.hu).

If you are interested in this position and meet the required criteria, please submit your application documents detailed above to <http://www.eli-alps.hu/career/>. Please use "Research Fellow: PaTHz_EA" in the subject of your e-mail.