Scientific Computing Specialist

Deadline: 4 June 2021
Ref: IA/21/11

Company description

Elettra Sincrotrone Trieste is an international multidisciplinary research center operated as a user facility, featuring a 2.0/2.4 GeV, third-generation synchrotron light source (Elettra), a new free-electron laser light source (FERMI) and a variety of support laboratories. The extremely high quality of the machines and beamlines has set new performance records and has been producing results of great scientific and technological interest. See http://www.elettra.eu for more information.

Beamline/Activity/Project description

The IT Group of Elettra Sincrotrone Trieste fulfils a wide range of tasks, from system administration and software acquisition to database management and algorithms for data analysis, service support as well as research and development. The Scientific Computing team of the IT Group is focused on the complete scientific data lifecycle including database systems and novel analysis methods.

Typical activities of the Scientific Computing Team include data analysis, computational imaging, AI topics, compression methods, code optimisation, mathematics and algorithm development. These activities have direct application to the beamlines and laboratories of Elettra and FERMI.

Job description

The successful candidate will actively contribute to the activities of the Scientific Computing group. These include research and development in computational imaging and data analysis systems.

The selected candidate will be directly involved in activities focused on X-ray microscopy where he/she is expected to develop reconstruction algorithms for ptychography, relevant mathematical concepts and assist their integration in beamline operation.

Concurrent participation in multiple activities related to data compression is expected, including partial contribution in external projects that may require traveling.

Qualifications

A university degree in Computer Science, Engineering, Mathematics or a related field and at least 2 years of work experience in software engineering is required.

Knowledge of Python is expected, as well as experience of GNU/Linux.

A proven academic record in research, such as PhD studies or research publications, would be considered an advantage.

The following technical and scientific skills would be considered a plus:

- knowledge of computational imaging;

- experience with synchrotron imaging techniques;

- knowledge of AI and ML for imaging problems;

- knowledge of X-ray Ptychography;

- familiarity with data compression methods;

- experience with electronics and detectors;

- participation in R&D projects.

Good oral and written communication skills in English are essential. Good time management skills together with the ability to interact with staff and facility users and to lead a multi-disciplinary team is expected.

The appointment envisioned is a 3 years fixed term contract.

The salary will be commensurate with the previous experience and qualifications of the candidates.

Applications should include a full curriculum vitae, the names and contact information (including electronic mail) of at least two references.

The deadline for the submission of the application is June 4, 2021.

In accordance with the provisions of article 21 of the Italian legislative decree no. 39/2013 and in conjunction with article 53 (subsection16ter) of Italian legislative decree no. 165/2001, employees or former employees of any Italian Public Entity who have exercised authority over Elettra Sincrotrone Trieste S.C.p.A. or have negotiated with Elettra - Sincrotrone Trieste S.C.p.A. within the last three years will be excluded from the present selection procedure.

We thank all applicants in advance.
For more information, please contact Roberto Pugliese (email: roberto.pugliese@elettra.eu) or Fulvio Bille` (email: fulvio.bille@elettra.eu).

To apply for this position please visit the following link:
https://www.elettra.trieste.it/it/about/careers/working-withus.html?id=1861