



Elettra Sincrotrone Trieste

# Postdoctoral Research Associate Position At EIS-TIMER Beamline

Deadline: 15 February 2021

Ref: DB/20/44

## 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 EIS-TIMER beamline at the FERMI seeded free-electron laser has been designed for performing transient grating (TG) experiments in the extreme ultraviolet (EUV) and soft x-ray regime, with the aim of investigating condensed matter dynamics at the nanoscale and developing a broader set of soft x-ray four wave mixing (XFWM) spectroscopies.

Comprehensive information on the beamline can be found at:

[www.elettra.eu/lightsources/fermi/fermi-beamlines/eis-timer/eis-timer.html](http://www.elettra.eu/lightsources/fermi/fermi-beamlines/eis-timer/eis-timer.html) .

The user community and the staff of the beamline have a very strong publication record in high-profile journals. At present the main research topics of the beamline staff and their collaborators include nanoscale thermal transport, ultrafast magnetic dynamics and phonon spectroscopy in non-crystalline solids.

## Job description

The successful candidate will be part of the EIS-TIMER team and is expected to propose and develop his/her original research project, mainly based on extreme ultraviolet/soft x-ray TG. He/she will collaborate with the staff members of the FERMI team and with external collaborators for carrying out user experiments. He/she will be also involved in the maintenance and upgrade activities of the beamline and experimental end-stations.

## Qualifications

A Ph.D. in Physics, Chemistry or a related discipline is required. The candidate must not have more than 6-years of total postdoctoral experience, in academic institution or private companies. Applications will be considered also from candidates who have completed a doctoral course of studies and for whom the defense has been scheduled. In any case, the Ph.D. must be awarded by the end of March 2021.

Proven experience in FEL or synchrotron radiation experiments, EUV/x-ray instrumentation, or table-top time-resolved methods based on optical lasers is required.

The following qualifications will be considered as additional assets (please indicate relevant publications or thesis):

- A research background in the fields of transport processes, non-linear optics, magnetism, strongly correlated materials or amorphous solids (especially dynamics).
- Use and basic maintenance of pulsed laser systems and optical setups.
- Previous participation in FEL, synchrotron or table-top laser experiments.
- Programming skills in Python or Matlab, including interfacing of instruments.
- Demonstrated ability in computational physics or data processing, and in the analysis of large datasets.

### Elettra - Sincrotrone Trieste S.C.p.A.

S.S. 14 Km 163,5 in Area Science Park  
34149 Basovizza, Trieste, Italy  
T. +39 040 37581  
F. +39 040 938 0903

P.IVA e C.F. IT00697920320  
Cap. Soc. € 47.632.663,00 i.v.  
PEC: [sincrotrone.trieste.elettra@legalmail.it](mailto:sincrotrone.trieste.elettra@legalmail.it)  
[www.elettra.eu](http://www.elettra.eu)

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The successful candidate should possess strong personal skills to pursue collaborative research programs in a team-oriented environment and to become part of existing research collaborations.

Good time management skills and ability to prioritize are expected, together with the ability to interact with staff and international users at all levels and to work as part of a multi-disciplinary team. Good oral and written communication skills in English are essential.

The appointment will be a fixed term contract with an initial duration of 12 months.

The salary will be commensurate with previous experience and qualifications of the candidate. Applications should include a full curriculum vitae, the names and contact information (including electronic mail) of up to three individuals who have agreed to provide references.

The deadline for the submission of the application is February 15, 2021.

Due to the situation related to the COVID-19 virus, the interviews will be performed through video conferencing.

In accordance with the provisions of article 21 of the Italian legislative decree no. 39/2013 and in conjunction with article 53 (subsection 16ter) 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 Filippo Bencivenga (email: [filippo.bencivenga@elettra.eu](mailto:filippo.bencivenga@elettra.eu)).

To apply for this position please visit the following link:

<https://www.elettra.trieste.it/it/about/careers/working-withus.html?ref=DB%2F20%2F44>

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