

Stanford University / SLAC National Accelerator Laboratory

LCLS (Linac Coherent Light Source) Scientist – [Associate or Staff Scientist Level, dual posting]

Job

Requisition # 2419

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Classification Title: **Staff Scientist- Associate**

Grade:

Location: **Menlo Park, CA (HQ)**

of openings: **1**

Description:

SLAC National Accelerator Laboratory is seeking an Associate Staff Scientist or Staff Scientist to join the Hard X-ray Department at the Linac Coherent Light Source (LCLS). LCLS, the world's first hard x-ray free electron laser, is ideal to study ultrafast processes in matter and utilize the femtosecond x-ray pulses for structural and time-resolved studies on a broad range of samples, combining high spatial and temporal resolution. The Associate Staff Scientist or Staff Scientist will be a member of the Science, Research & Development (SRD) Division, whose mission is to ensure the success of experiments at LCLS by operating, maintaining and upgrading the instrumentation. As a member of the Hard X-ray Department (HXR) department, you will be involved in every day experiments as well as potential development of new instrumentation.

The HXR department operates four instruments at LCLS: the X-ray Pump Probe (XPP) instrument, the X-ray Correlation Spectroscopy (XCS) instrument, the Macromolecular Femtosecond Crystallography (MFX) instrument and the Coherent X-ray Imaging (CXI) instrument. This position is expected to focus primarily on the operations, optimization and future development of all the HXR instruments with a primary focus on materials, x-ray imaging methods, coherence techniques, spectroscopy and time resolved methods. The suite of instruments at the HXR department provides versatile capabilities with ample growth opportunities in the utilization of the unique LCLS beam properties using various techniques. You will pursue these opportunities while developing a collaborative and strong user support framework for optimal use of the facility. You will also have the opportunity to engage in scientific research and develop new scientific directions.

Specific Responsibilities (including but not limited):

- Improve proficiency in the operation of LCLS instrumentation and user activities.

- Perform research and development to expand the capabilities of LCLS.
- Participate in planning and performing forefront experiments in ultrafast X-ray science and structural biology using the LCLS.
- Collaborate with other instrument scientists, engineers and technical staff to execute planned experiments.
- Disseminate research results through peer reviewed publications and presentations at scientific meetings.

Note: This position is posted at the Associate Staff Scientist and Staff Scientist levels. The Associate Staff Scientist position is a 3 to 5 year fixed term position for a recent graduate or post-doctoral fellow and is the entry level in the Staff Scientist career path. Appointment to the Staff Scientist level, a regular-continuing position, requires a review and evaluation of documented scientific achievements.

Applicants will be evaluated for the proper level based on research experience and accomplishments in field of expertise.

If interested, please apply to this link:

<https://chk.tbe.taleo.net/chk01/ats/careers/requisition.jsp?org=SLAC&cws=1&rid=2419>

MINIMUM REQUIREMENTS:

Education & Experience:

Ph.D. in Physics, Applied Physics, Chemistry, Biology or related field with post-doctoral experience.

Knowledge, Skills and Abilities

- Extensive background in synchrotron radiation or Free-Electron Laser techniques and instrumentation, with emphasis in materials science, hard X-ray imaging, coherence methods, spectroscopy and time-resolved methods.
- Ability to develop, design and test new scientific instrumentation.
- Record of scientific productivity through publications.
- Strong analytical and computation skills.
- Demonstrated organizational skills and ability to multi-task and complete assignments.
- Effective communication and writing skills to prepare and present technical and scientific documentation.
- Ability to carry out independent research, collaborate closely with colleagues conducting experimental research, and participate in the writing of scientific proposals to fund research.
- Ability to work independently and in a team environment.
- Ability to work and communicate effectively with a diverse population.

Experience in one or more of the following required

- Hard x-ray imaging methods, at synchrotrons and/or XFELs.
- Materials science.
- The use of x-ray coherence.
- Spectroscopic methods.
- Time-resolved methods.

- X-ray instrumentation and operation
- Data processing and data analysis of large data sets.
- Analysis of coherent diffractive imaging data.
- X-ray optics and beamline design
- Optical lasers.

SLAC Employee Competencies

- **Effective Decisions:** Uses job knowledge and solid judgment to make quality decisions in a timely manner.
- **Self-Development:** Pursues a variety of venues and opportunities to continue learning and developing.
- **Dependability:** Can be counted on to deliver results with a sense of personal responsibility for expected outcomes.
- **Initiative:** Pursues work and interactions proactively with optimism, positive energy, and motivation to move things forward.
- **Adaptability:** Flexes as needed when change occurs, maintains an open outlook while adjusting and accommodating changes.
- **Communication:** Ensures effective information flow to various audiences and creates and delivers clear, appropriate written, spoken, presented messages.
- **Relationships:** Builds relationships to foster trust, collaboration, and a positive climate to achieve common goals.

SLAC National Accelerator Laboratory is an Affirmative Action / Equal Opportunity Employer and supports diversity in the workplace. All employment decisions are made without regard to race, color, religion, sex, national origin, age, disability, veteran status, marital or family status, sexual orientation, gender identity, or genetic information. All staff at SLAC National Accelerator Laboratory must be able to demonstrate the legal right to work in the United States. SLAC is an E-Verify employer.

Final candidates are subject to background checks prior to commencement of employment at the SLAC National Accelerator Laboratory.

Internal candidates, who are selected for hire, may require degree verification and/or credit checks based on requirements of the new position.