Research Associate – Superconducting Radiofrequency (SRF) Guns

SLAC National Accelerator Laboratory seeks a Research Associate within the Accelerator Directorate to work on exciting ongoing R&D activities on superconducting radiofrequency (SRF) guns at SLAC. SRF guns, operating in continuous-wave and featured with high acceleration gradient, high output energy, superior stability in both energy and timing, and potential compatibility with advanced photocathodes, are the leading candidate as the next generation source to deliver bright electron beams to drive X-ray FELs, ultrafast electron diffraction and microscopy, as well as other forefront instruments for scientific discoveries and technical innovations. There are R&D opportunities on a wide spectrum of technical areas around the physics, technology and applications of SRF guns, including for example beam dynamics, advanced diagnostics, SRF design and optimization, machine control and instrumentation, etc. The RA will have the opportunity to contribute to all of these areas while to focus and to play a leading role in a one or few of them.

Qualifications:

- A Ph.D. in Accelerator Physics or related field.
- Strong experimental/hardware skills.
- Programming background for data analysis using MATLAB, Python, etc.
- Demonstrated effective written and verbal communication skills.
- Demonstrated ability to work independently and in a team environment.

Desired Skills:

- Experience with electron sources, normal-conducting and superconducting radiofrequency, ultrafast laser.
- Experience developing scientific GUIs
- Experience with DOE funded national lab research.
- Experience with user facility operations and research.
- Demonstrated experience and capabilities in building and commissioning hardware and carrying out experiments

Note: This is a two-year fixed term position with the possibility of extension. Research Associates are engaged with the design, support, operation and/or scientific exploitation of the major programs of the laboratory, under the guidance of their faculty or Senior Staff Scientist / Distinguished Staff Scientist supervisor. They are expected to work with a significant degree of independence on one or more specific tasks in support of the research program, frequently interacting with the laboratory’s scientific community.

Applicants will be evaluated on research experience and accomplishments in their field of expertise. Please submit a cover letter, a CV (Resume) with a list of publications, research experience and accomplishments.  

Apply here.