SLAC National Accelerator Laboratory is one of 17 Department of Energy (DOE) National Laboratories, and operated by Stanford University on behalf of the DOE. SLAC develops and operates some of the world's premier science facilities, including the first hard X-ray free-electron laser. Research at SLAC explores the structure and function of matter and the properties of energy, space and time, at the smallest and largest scales, all with the goal of solving problems facing society and advancing human knowledge.

Research Associate - Neutrino Physics

Job Requisition #:	**2516**
Classification Title:	**Research Associate - Experimental**
Grade:	
Location:	**Menlo Park, CA (HQ)**
# of openings:	**1**

Description

The SLAC National Accelerator Laboratory is seeking applicants for an experimental Research Associate position to work in the area of Neutrinoless Double Beta Decay ($0\nu\beta\beta$) searches. SLAC has been a leading collaborator on the 100 kg-scale EXO-200 experiment using a liquid xenon (LXe) Time Projection Chambers (TPC), an effort that has produced the most accurate measurement of any two-neutrino double-beta decay half life and some of the most sensitive limits on the as-yet-unseen neutrinoless process. SLAC has taken an active or leading role in all aspects of the project – TPC design, xenon systems design, cryogenic systems design, electronics, DAQ, online and offline software, and data analysis. SLAC continues to manage EXO-200 operations at the WIPP facility in Carlsbad New Mexico.

R&D for the future multi-tonne-scale "nEXO" LXe TPC, intended to increase the sensitivity for $0\nu\beta\beta$ more than 10-fold and to cover the phase space allowed by the "inverse neutrino mass hierarchy", is presently underway.

The following are the present areas of SLAC engagement in this new project:

- All aspects of TPC layout and mechanical design
- Fundamental R&D and detailed design for critical TPC high voltage electrode configurations and feedthroughs.
- R&D in liquid xenon purity control and measurement.
- Participation in electronics and DAQ design

This position is geared toward hardware R&D efforts, but in addition there will be an opportunity to participate in data analysis for EXO-200, so the successful candidate will be expected to have significantly broad experience.

The term of this position is for two years, with extensions being possible subject to review. For further information about this position, please contact Dr. P.C. Rowson (rowson@slac.stanford.edu) and/or Prof. G. Gratta, the nEXO spokesperson (gratta@stanford.edu).

Qualifications:

This is a highly competitive position as part of the general research associate program at SLAC, requiring a background of demonstrated excellence in research and a recent PhD in experimental particle physics. The successful candidate should have experience both in hardware and data analysis.

How to apply

Interested candidates should submit the following online at https://academicjobsonline.org/ajo/jobs/8862 :

- A letter of application indicating the primary physics program of interest
- C.V.
- Selected bibliography, highlighting personal contributions
- Brief statement of research interest
- Three confidential letters of recommendation from senior physicists that should be directly uploaded on the website

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, team collaboration, and a positive climate to achieve common goals.

WORK STANDARDS:

- When conducting university business, must comply with the California Vehicle Code and Stanford University driving requirements.
- Interpersonal Skills: Demonstrates the ability to work well with Stanford colleagues and clients and with external organizations.
- Promote Culture of Safety: Demonstrates commitment to personal responsibility and value for safety; communicates safety concerns; uses and promotes safe behaviors based on training and lessons learned.
- Subject to and expected to comply with all applicable University policies and procedures, including but not limited to the personnel policies and other policies found in the University's Administrative Guide, http://adminguide.stanford.edu.

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.

For Clery Act Information click here: http://www.stanford.edu/group/SUDPS/safety-report/security-authorities.shtml

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