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Job ID 673609

Full/Part Time Full-Time

Location Albuquerque, NM

Regular/Temporary Temporary

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Posting Duration

This posting will be open for application submissions for a minimum of seven (7) calendar days, including the 'posting date'. Sandia reserves the right to extend the posting date at any time.

What Your Job Will Be Like

Are you passionate about your work and dream of utilizing state-of-the-art facilities to explore solutions? Join a dynamic team that solves significant issues for our nation's security!

The Fusion Experiments department is seeking a postdoctoral researcher to develop state-of-the-art neutron diagnostics for the Z pulsed power generator! The Z machine is one of the nation's major capabilities for Inertial Confinement Fusion (ICF) and High Energy Density (HED) physics. Diagnosing fusion products, such as neutrons, plays a key role in understanding these ICF and HED experiments.

On any given day, you may be called upon to:

- Develop one or more neutron diagnostics for future experiments on the Z pulsed power facility
- Develop models and laboratory calibrations to understand the behavior of nuclear diagnostics
- Interact with experimental and computational physicists to understand the gaps in our measurement capabilities
- Develop tools to analyze and interpret experimental data from Z
- Document your work through peer reviewed publications and presentations at international conferences

Qualifications We Require

- PhD (earned, or nearing completion of) in nuclear physics, plasma physics or a related field
- Ability to obtain and maintain a DOE Q security clearance

Qualifications We Desire

- Proven ability to develop nuclear diagnostics or other diagnostics for High Energy Density physics experiments
- Experience using particle modeling tools such as MCNP or GEANT
- Ability to work independently and as part of a team of experimental and diagnostic scientists, engineers and technologists
- Strong publication record
- History of multi-institution collaborations

Position Information

This postdoctoral position is a temporary position for up to one year, which may be renewed at Sandia's discretion up to five additional years. The PhD must have been conferred within five years prior to employment.

Individuals in postdoctoral positions may bid on regular Sandia positions as internal candidates, and in some cases may be converted to regular career positions during their term if warranted by ongoing operational needs, continuing availability of funds, and satisfactory job performance.

About Our Team

The Fusion Experiments department (01683) designs and performs Inertial Confinement Fusion and High Energy Density Physics experiments in support of NNSA's stockpile stewardship program. The department also develops and supports state-of-the-art diagnostic systems used for fusion experiments, including nuclear diagnostics and x-ray and laser imaging. Experiments are principally performed on Sandia's Z pulsed power facility, with team members also performing experiments on the Mykonos pulsed power driver at Sandia, laser facilities including Z-Beamlet, the National Ignition Facility and Omega and at Sandia's Ion Beam Laboratory. The department has active collaborations with Lawrence Livermore National Laboratory, Los Alamos National Laboratory, the Laboratory for Laser Energetics, the UK Atomic Weapons Establishment, and a variety of universities.

About Sandia

Sandia National Laboratories is the nation's premier science and engineering lab for national security and technology innovation, with teams of specialists focused on cutting-edge work in a broad array of areas. Some of the main reasons we love our jobs:

- Challenging work with amazing impact that contributes to security, peace, and freedom worldwide
- Extraordinary co-workers
- Some of the best tools, equipment, and research facilities in the world
- Career advancement and enrichment opportunities
- Flexible schedules, generous vacations, strong medical and other benefits, competitive 401k, learning opportunities, relocation assistance and amenities aimed at creating a solid work/life balance*

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*These benefits vary by job classification.

Security Clearance

Sandia is required by DOE to conduct a pre-employment drug test and background review that includes checks of personal references, credit, law enforcement records, and employment/education verifications. Applicants for employment need to be able to obtain and maintain a DOE Q-level security clearance, which requires U.S. citizenship. If you hold more than one citizenship (i.e., of the U.S. and another country), your ability to obtain a security clearance may be impacted.

Applicants offered employment with Sandia are subject to a federal background investigation to meet the requirements for access to classified information or matter if the duties of the position require a DOE security clearance. Substance abuse or illegal drug use, falsification of information, criminal activity, serious misconduct or other indicators of untrustworthiness can cause a clearance to be denied or terminated by DOE, resulting in the inability to perform the duties assigned and subsequent termination of employment.

EEO

All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability, or veteran status and any other protected class under state or federal law.