

Overview

Located in northern New Mexico, Los Alamos National Laboratory (LANL) is a multidisciplinary research institution engaged in strategic science on behalf of national security. LANL enhances national security by ensuring the safety and reliability of the U.S. nuclear stockpile, developing technologies to reduce threats from weapons of mass destruction, and solving problems related to energy, environment, infrastructure, health, and global security concerns.

Detailed Description

The Quantum Technologies Team in P-21 is seeking highly motivated postdoctoral researchers in experimental atomic and optical physics. The positions provide an opportunity to pursue experimental study of Bose-condensed atoms in matter wave circuits with the “Painted Potential” technique used to create arbitrary and dynamic potentials. There are two opportunities. One area is focused on creating a guided matter wave interferometer with ^{88}Sr atoms utilizing the unique characteristics of ^{88}Sr atoms such as very small interaction strength and non-magnetic ground state. The other area is focused on creating macroscopic entangled states with an atom analog of a SQUID for quantum metrology applications with strongly interacting ^{39}K atoms.

Applicants should have substantial experience with experiments either in cold atom physics or in areas that have equipped them to learn the relevant physics quickly.

Review of applications will begin immediately and will continue until the positions are filled.

Job Requirements

Minimum Job Requirements:

- Demonstrated ability to conduct independent research in experimental atomic physics or in areas requiring similar experimental and technical skills.
- Demonstrated ability to work harmoniously in a team

Desired Skills:

- Knowledge of cold atom physics
- An excellent track record of publications and experience presenting at conferences.

Education: Ph.D. in physics, or a related field, within the past five years (or soon to be completed).

Additional Details

Notes to Applicants: Questions can be sent to Malcolm Boshier at

boshier@lanl.gov or Changhyun Ryu at cryu@lanl.gov

Candidates may be considered for a Director's Fellowship and outstanding candidates may be considered for the prestigious Marie Curie, Richard P. Feynman, J. Robert Oppenheimer, or Frederick Reines Fellowships.

Please apply for this position online through LANL website <https://www.lanl.gov/careers/index.php> (vacancy name IRC69468).