

NMSU NIST PREP Program

Superconducting Nanowire Single-Photon Detector Development Postdoctoral Researcher

The Applied Physics Division at NIST seeks qualified postdoctoral researchers to design, fabricate, and test a new type of superconducting single-photon detector. We anticipate multiple open positions in support of our efforts in developing superconducting nanowire single-photon detectors (SNSPDs). Our group is working to better understand basic superconductor device physics and to design, fabricate, and test next-generation SNSPDs for future applications in quantum optics, astronomy, and biomedical imaging.

The positions will be based in Boulder, Colorado, in the Quantum Nanophotonics and Faint Photonics groups led by Rich Mirin and Marty Stevens. Candidates will have access to the NIST-Boulder Microfabrication Facility, a state-of-the-art 18,000 square foot cleanroom dedicated primarily to superconductor micro- and nano-fabrication, and to extensive electrical and optical testing equipment.

Qualifications

- PhD in electrical engineering, physics, or a related field
- Expertise in one or more of the following: superconductivity, nanofabrication, cryogenics, microwave electronics, or optics.
- Additional experience beyond the Ph.D. is not required.
- US citizenship: Not required.

Salary Range: \$80,665 - \$85,000, NIST Grade Equivalent: ZP-III: ZP-III

Length of Term: Start dates are anticipated to be between July and December 2024.

To Apply: Qualified candidates should send a current CV, including contact information for three references and a publication list, to Dr. Patricia Sullivan (patsulli@nmsu.edu).

The logo for New Mexico State University (NMSU) is located at the bottom center of the page. It consists of the letters "NM" stacked above "STATE" in a bold, serif font, all contained within a white square that has a maroon border. The square is set against a maroon background.

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