

Postdoc Position Available at CU DENVER NIST PREP Program

NIST Organization (Div/Group): [Computing and Communications Theory Group](#)

This position is part of the National Institute of Standards (NIST) Professional Research Experience (PREP) program. NIST recognizes that its research staff may wish to collaborate with researchers at academic institutions on specific projects of mutual interest, thus requires that such institutions must be the recipient of a PREP award. The PREP program requires staff from a wide range of backgrounds to work on scientific research in many areas. Employees in this position will perform technical work that underpins the scientific research of the collaboration.

Position and tasks:

This position involves quantum information science research. The main task is to develop theory and methods in applied quantum information science. This may include theory and analysis of quantum characterization protocols, developing such protocols, investigating the behavior of differently randomized protocols and circuits, and specification of test problems for comparing performances of quantum and classical computing systems.

Key responsibilities will include but are not limited to:

- PhD in Physics or a related field.
- Experience with theoretical quantum information science research.
- Familiarity quantum information theory and its applications.
- Ability to implement and simulate models.
- Strong oral and written communication skills.

NIST Sponsor Name: [Emanuel Knill](#)

Level of Appointment: [Postdoc](#)

- The candidate must be eligible to work in the U.S.A. by time of application.

Salary Determination: [\\$80,000 – \\$85,000](#)

Length of Term:

[Start dates : 2025 - 01-31](#)

[End Date : 2026 - 01-30](#)

Purpose: The National Institute for Standards and Technology (NIST) hosts the [Professional Research Experience Program \(PREP\)](#) which is designed to provide valuable laboratory experience and financial assistance to undergraduates, post-bachelor's degree holders, graduate students, master's degree holders, postdocs, and faculty.

PREP is a 5-year cooperative agreement between NIST laboratories and participating PREP Universities to establish a collaborative research relationship between NIST and U.S. institutions of higher education in the following disciplines including (but may not be limited to) biochemistry, biological sciences, chemistry, computer science, engineering, electronics, materials science, mathematics, nanoscale science, neutron science, physical science, physics, and statistics. This collection of information is needed to facilitate administrative functions of the PREP Program.

Routine Uses: NIST will use the information collected to perform the requisite reviews of the applications to determine eligibility, and to meet programmatic requirements. Disclosure of this information is also subject to all the published routine uses as identified in the Privacy Act System of Records Notices: NIST-1: NIST Associates.

Disclosure: Furnishing this information is voluntary. When you submit the form, you are indicating your voluntary consent for NIST to use of the information you submit for the purpose stated.

For possible consideration and to apply to this position, qualified candidates should send a current CV, including contact information for three references and a publication list, to Hamid Fardi (hamid.fardi@ucdenver.edu).

CU Denver PREP posting:

[https://engineering.ucdenver.edu/research/prep-research program](https://engineering.ucdenver.edu/research/prep-research-program)