Assistant/Associate Professor Quantum Information Science - Physics & Astronomy/Chemistry

The Departments of Chemistry and Physics & Astronomy in the College of Science at Purdue University invite applications for up to five positions in Quantum Information Science (QIS). These positions would be at the assistant/associate level appointments based on scholarly record. When appropriate, successful candidates may be considered for joint and interdisciplinary appointments across the College.

QIS is at the frontier of several traditional research disciplines including condensed matter physics, atomic, molecular, and optical physics, information theory, applied math and computer science, and chemistry. QIS strives to harness the unusual quantum mechanical properties of superposition and entanglement to provide breakthrough advances for computing, secure communications, and novel device functionalities. As such, QIS is part of a large-scale interdisciplinary hiring effort across key strategic areas in the College of Science—Purdue’s second-largest college, comprising the physical, computing, and life sciences—these positions come at a time when the College is under new leadership and with multiple commitments of significant investment.

The College of Science is especially seeking to enhance our existing strengths in research at the interface of Chemistry and Physics and growth within Computer Science and Math through strategic hiring of creative scientists to be part of the cutting-edge interdisciplinary environment provided by Purdue University. Successful candidates will have research interests that can build a comprehensive suite of capabilities in experimental and/or theoretical quantum computing with superconducting qubits, spins in semiconductors and other condensed matter systems, cold atomic ions, Rydberg, photonic systems chemical physics, or quantum materials. Also of inherent interest for progress in this field are quantum algorithm research and information theoretic analysis.

Qualifications: Candidates must have a PhD in physics, chemistry, math, and computer science, or other fields related to QIS, with outstanding credentials in research, an excellent track record of publications and potential for developing a vibrant research program, as well as a strong commitment to excellence in teaching. Successful candidates are expected to develop a vibrant research program supported by extramural funding and teach courses at the undergraduate and/or graduate level.

The Departments and College: The two Departments have over 100 tenured and tenure-track faculty, more than 300 graduate students, and over 500 undergraduate students between them. Over the last 5 years the two departments, Chemistry and Physics and Astronomy, have added more than 20 faculty and significant investment has been made in key areas of discovery. The College and the Departments have launched initiatives in new emerging areas, such as Data Science and Quantum Information Science, and committed the resources necessary to make the new growth impactful. For more information, see http://www.physics.purdue.edu/ and https://www.chem.purdue.edu/.

Physics and Astronomy and Chemistry are part of the College of Science, which comprises the computing, physical, and life sciences at Purdue. It is the second-largest college at Purdue, with over 350 faculty and more than 6,000 students. Purdue itself is one of the nation’s leading land-grant universities, with an enrollment of over 41,000 students primarily focused on STEM subjects. For more information, see https://www.purdue.edu/purduemoves/initiatives/STEM/index.php.

Application Procedure: Applications need to be submitted to https://career8.successfactors.com/sfcareer/jobreqcareer?jobId=8338&company=purdueuniv&username= and must include (1) a complete curriculum vitae, (2) a publication list, (3) a brief statement of present and future research plans, and (4) a statement of teaching philosophy. In addition, candidates should arrange for at least 3 letters of reference to be sent to qissearch@purdue.edu. Questions regarding the position and search should be directed to chgreene@purdue.edu. Applications completed by December 15, 2019 will be given full consideration, although the search will continue until the position is filled.

Purdue University’s Department of Physics and Astronomy is committed to advancing diversity in all areas of faculty effort, including scholarship, instruction, and engagement. Candidates should address at least one of
these areas in their cover letter, indicating their past experiences, current interests or activities, and/or future goals to promote a climate that values diversity and inclusion. A background check will be required for employment in this position.

Purdue University is an EEO/AA employer. All individuals, including minorities, women, individuals with disabilities, and veterans are encouraged to apply.