Editorial: Introducing *PRX Quantum*—a new open access journal in the *Physical Review* family

I am delighted to introduce the first issue of *PRX Quantum*, the first open access, highly-selective topical journal in the *Physical Review* portfolio, published by the American Physical Society (APS). The journal represents a new endeavor within the *Physical Review* family and was conceived to expand on fulfilling the mission of the APS “to advance and diffuse the knowledge of physics for the benefit of humanity, promote physics, and serve the broader physics community.” In keeping with the 2019 APS Strategic Plan, the launch of *PRX Quantum* grows and diversifies the APS publishing footprint to reflect the evolution of physics and better serve the global scientific community. Furthermore, it provides authors with another publishing option that supports open science and complies with open access mandates.

Expanding on the excellence and innovation of *Physical Review X* (PRX), *PRX Quantum* will publish quantum information science and technology (QIST) research with lasting impact, in a fully open access format to maximize the visibility and impact of the latest research from the QIST communities under a CC-BY license that allows authors to retain copyright in their work.

PRX Quantum aims to serve as a forum and platform for the diverse, multidisciplinary QIST research community to share the latest results and ideas from a wide range of disciplines together including physics, computer science, mathematics, chemistry, materials, engineering, and technology.

While focusing on QIST research, *PRX Quantum* will be an integral part of the *Physical Review* family of journals. *Physical Review Letters* (PRL), the world’s premier physics letter journal and PRX, the highest-impact open access journal in physics, will continue to cover quantum information as part of their broad scopes across physics and related areas. *PRX Quantum* will complement PRX by expanding the open access coverage of QIST. Thus, it will serve this growing field of research with the goal to publish important research of high interest across the interdisciplinary QIST community.

The high quality and standards for the research articles published in *PRX Quantum* will be set by an outstanding team of editors with long experience in identifying impactful papers. I am very excited that Professor Stephen Bartlett from the University of Sydney, Australia has agreed to serve as the journal’s first Lead Editor. Stephen is a distinguished researcher in theoretical quantum physics, with focus areas in quantum information theory, quantum computing, quantum measurement and control, quantum many-body systems, and the foundational issues of quantum mechanics.

Stephen will work closely with two excellent managing editors, Katuscia Cassemiro and Stojan Rebic, who come from *Physical Review A* and PRL, respectively. They will continue to be involved with these journals which will strengthen the integration of *PRX Quantum* with the other *Physical Review* journals.

Katuscia, Stojan, and Stephen have already assembled a first-rate, diverse Editorial Board, representing universities, industry, and national laboratories and institutes from four different continents, covering the broad range of QIST research areas. The Board members will help guide and shape the future of the journal.

I am confident that this team of editors together with the Editorial Board will rapidly establish *PRX Quantum* as a leading journal for a diverse and dynamic QIST community. I hope you will enjoy and be inspired by the articles in this first issue and all upcoming ones.

Michael Thoennessen
Editor in Chief
American Physical Society

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