

PRESS RELEASE

SISSA launches JQuant, a new open-access scientific journal at the intersection of quantum information and fundamental physics

The new publication adopts the diamond open-access model: no fees for authors and freely accessible content. Its focus is theoretical research and dialogue across different areas of quantum science. The authors of the first papers include internationally renowned scientists such as J. Ignacio Cirac, Barbara Kraus, John Preskill and Nobel laureate Giorgio Parisi. The editorial process is managed by SISSA Medialab.



Journal of Quantum Science

Trieste, 28 October 2026

A scientific journal designed for a rapidly expanding research community in which quantum information and fundamental physics meet and cross-pollinate. This is The Journal of Quantum Science (JQuant), the new international scientific journal owned by SISSA – Scuola Internazionale Superiore di Studi Avanzati in Trieste, which has just debuted with the publication of its first five papers.

Launched as a non-profit initiative, JQuant aims to become a leading journal in the field of quantum science.

The journal aims to advance theoretical research in quantum information, quantum computation, quantum simulation, quantum sensing, quantum many-body physics, and quantum foundations and to provide the scientific community with a much-needed forum for developing new interdisciplinary research directions in quantum science.

JQuant joins the six other journals launched by SISSA and managed by SISSA Medialab, which takes care of their editorial processes. The authors of the first papers published in JQuant include J. Ignacio Cirac, Barbara Kraus, John Preskill



and Nobel laureate Giorgio Parisi, all internationally recognised researchers who have received prestigious scientific awards.

A diamond open-access model

One of JQuant's distinguishing features is its publishing model, known as diamond open-access. Under this model, authors pay no publication fees and all content is freely available, with no financial barriers for readers. This is made possible by the financial support of a network of research institutions that collectively invest in high-quality scientific publishing that is open and led by its own community.

JQuant is the latest addition to the publishing portfolio of SISSA Medialab, which now publishes and manages seven international journals dedicated to physics and science communication, guided by the principle of "by scientists for scientists". JQuant is built on the same approach: editorial decisions and scientific direction are entrusted to researchers active in their respective fields, who also assess submissions through the peer-review process.

A new journal for a new community

Over the past twenty years, quantum information science has evolved rapidly, reshaping the boundaries between fundamental physics and technology. At the intersection of quantum computation, high-energy physics, statistical mechanics, and condensed matter physics, a new interdisciplinary research community has emerged. Until now, however, there has been no journal specifically designed to bring these research areas into dialogue.

JQuant aims to address this need by providing a dedicated publishing platform for theoretical research and the exchange of ideas across disciplines.

A distinctive feature is its financial and organisational model, inspired by SCOAP³ (Sponsoring Consortium for Open Access Publishing in Particle Physics), the world's largest open-access initiative in high-energy physics. Hosted by CERN and collectively supported by research institutions, SCOAP³ provides a model for sharing publishing costs rather than placing the burden on individual authors.

JQuant builds on this approach to develop a publishing system in which costs are shared and do not fall on authors.

An international network supporting open research

The launch of the journal has been made possible by an international network of institutions, including SISSA, CERN, ICTP and DESY. Their support is essential to ensuring open access to the journal's content and helping the project remain sustainable over time.

The journal's scientific leadership brings together experts of international standing. Scientific Directors Rosario Fazio and Yaron Oz are responsible for monitoring scientific quality and overseeing the selection and appointment of JQuant's editors. The Advisory Board, which provides longterm strategic guidance and contributes to shaping the journal's scientific policies, comprises Pasquale Calabrese, José Ignacio Latorre, Sofia Vallecorsa and Peter Zoller. The Editorial Board consists of researchers selected to represent the journal's strategic scientific areas. It is responsible for assessing submissions and making final publication decisions.

A publishing model for the future of open science

JQuant aspires to become a leading journal for theoretical research in a rapidly evolving field.

The journal also serves as a pilot project for a scalable model of scientific publishing governed by the research community. Its aim is to demonstrate how collective funding mechanisms can provide a sustainable alternative to traditional publishing models, in line with the principles of open science.

As Rosario Fazio, one of the two Scientific Directors, explains: "With JQuant, we also aim at bringing together scientists working at the interface between condensed matter, statistical physics and high-energy physics on one side, and quantum information on the other. Our hope is that the journal will grow alongside this community, with the ambition of becoming a leading reference point for these interdisciplinary fields."

SISSA Director Andrea Romanino adds: "The launch of JQuant is part of SISSA's long tradition of innovation in scientific publishing. Pioneering work on electronic archives began here, almost in parallel with developments at Los Alamos, followed by JHEP, the first entirely electronic scientific journal, which is now ranked first in its field by impact factor. With JQuant, we want to continue along this path in a new and highly significant scientific area: quantum science and technologies."

LINK:

[JQuant - Journal of Quantum
Science](#)
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