



Okinawa Institute of Science and Technology
Post-doctoral Scholar in Qubits and Spacetime Unit (Hoehn Unit)

The Okinawa Institute of Science and Technology Graduate University [OIST](#) is a dynamic new graduate university of science and technology in Okinawa Prefecture, Japan. The university is located on 85 hectares of protected forestland overlooking beautiful shoreline and coral reefs. The campus is striking architecturally, and the facilities are outstanding ([OIST campus video tour](#)). There are no academic departments, which facilitates multidisciplinary research. Outstanding resources and equipment are provided and managed to encourage easy access and collaboration. English is the official language of the University, and the university research community is fully international, with more than 50 countries represented. OIST is rapidly gaining recognition in the worldwide academic community as a model for excellence in education and research.

Unit summary:

One 3-year postdoctoral position will become available in September 2021 in the Qubits and Spacetime Unit led by Philipp Hoehn. The research of the unit lies broadly at the interface of quantum gravity, quantum information and foundations, focusing on general questions in an around quantum gravity. Current research interests include studying dynamics and observables in a diffeomorphism-invariant context, using quantum reference systems to explore a quantum version of general covariance, equilibrium and non-equilibrium spacetime thermodynamics, the interplay of quantum correlations and spacetime geometry, entanglement in gauge systems, as well as the emergence of classicality from within quantum theory, especially in the presence of chaos. For further information on some of these topics, see <https://groups.oist.jp/quast>. Candidates with an interest in any of these or related topics are encouraged to apply.

OIST currently harbors three further units in quantum gravity or related topics in mathematical physics, headed by Shinobu Hikami, Yasha Neiman and Reiko Toriumi. Furthermore, the institute regularly hosts international workshops, seminars and visitors in this area, providing for a stimulating research environment. The unit will provide support for traveling and hosting collaborators.

Responsibilities:

The successful candidate will contribute to the research program of the Qubits and Spacetime Unit, but is also encouraged to carry out self-designed projects. Active participation in group seminars and meetings is expected, as well as in assisting with their organization. The successful candidate may also contribute to mentoring students.

Position:

Post-doctoral Scholar



Working Location:

OIST main campus

1919-1 Tancha, Onna-son, Kunigmi-gun, Okinawa

Qualifications:

(Required)

1. Completed PhD in theoretical physics or mathematics by the time of employment.
2. Background in one or several of the following topics: quantum gravity, quantum information, quantum field theory, quantum foundations, quantum many-body physics or mathematical physics.
3. Fluency in English.

Report to:

Prof. Philipp Hoehn

Starting Date:

Fall 2021

Term & Working hours:

Term: Full-time, fixed-term appointment for 3 years. Contract initially with 3-months probationary period (inclusive).

Working hours: 9:00-17:30 (Discretionary)

Compensation & Benefits:

Compensation in accordance with the OIST Employee Compensation Regulations

Benefits:

- Relocation, housing and commuting allowances
- Annual paid leave and summer holidays
- Health insurance (Private School Mutual Aid <http://www.shigakukyosai.jp/>)
- Welfare pension insurance (kousei-nenkin)
- Worker's accident compensation insurance (roudousha-saigai-hoshou-hoken)



How to Apply:

Apply by uploading your Submission Documents through Academic Jobs Online at <https://academicjobsonline.org/ajo/jobs/17513>

Enquiries: [quast.oist \[at\] gmail.com](mailto:quast.oist@gmail.com)

(Please replace [at] with @ before using this email address)

Submission Documents:

- Cover letter
- Research statement including summary of past achievements and future research plans
- Curriculum vitae including publication list
- Three letters of reference

Application Due Date:

Applications will be screened as they come in. Preferably they should be received by December 15th, 2020

Declaration:

- * OIST Graduate University is an equal opportunity, affirmative action educator and employer and is committed to increasing the diversity of its faculty, students and staff. The University strongly encourages women and minority candidates to apply.
- * Information provided by applicants or references will be kept confidential, documents will not be returned. All applicants will be notified regarding the status of their applications.
- * Please view our policy for rules on external professional activities (<https://groups.oist.jp/acd/information-disclosure/>).
- * Further details about the University can be viewed on our website (www.oist.jp).