



Job No. QUP22-1

[The International Center for Quantum-field Measurement Systems for Studies of the Universe and Particles \(QUP\)](#) solicits applications for positions described below. QUP was established on December 16, 2021, at [High Energy Accelerator Research Organization \(KEK\)](#) as one of the research centers under [the World Premier International Research Center Initiative \(WPI\)](#) of the Japanese government. QUP's main laboratories are located on the Tsukuba campus of KEK in Tsukuba science city, 60 km northeast of Tokyo, Japan. In addition, QUP is opening up three satellite laboratories at the University of California Berkeley, the Institute of Space and Astronautical Sciences (ISAS) at Japan Aerospace Exploration Agency (JAXA), and Toyota Central R&D Labs.

QUP sets the following missions:

- Integrate particle physics, astrophysics, condensed matter physics, measurement science, and systems science.
- Invent and develop new systems for measuring quantum fields (space-time with particles and quasiparticles created and annihilated, and associated physical quantities).
- Bring innovation to measurements in cosmological observations and particle experiments, and elucidate the true nature of space-time and matter.
- Establish a new measurement science, quantum field measurement systemology, as a science of means through the above practices.
- Last but not least, we will create a new level of fusion of various research areas beyond physics and new social values through application to other fields and social implementation.

In short, QUP will bring "new eyes" to humanity.

## **Associate or Assistant Professor in experimental astrophysics and cosmology**

We seek a candidate at the rank of Associate Professor or Assistant Professor in experimental astrophysics and cosmology. The position is for five years with the possibility of renewal or promotion to a tenured position(\*) based upon satisfactory job performance, continuing availability of funds, and ongoing operational needs. Salary is comparable to those at other prestigious institutions. The appointee will receive financial support for starting-up research.

(\*) As the host of QUP, KEK has committed to acquiring tenure positions for outstanding senior researchers hired at QUP (see [the link.](#))



The appointee will work with Professor Masashi Hazumi and the LiteBIRD team, and will serve as the project manager for the LiteBIRD low-frequency telescope focal-plane system development. Development and characterization of the new superconducting detector system for LiteBIRD, JAXA's strategic L-class mission to be launched in the late 2020s to map polarization of the Cosmic Microwave Background (CMB), is QUP's flagship mission. We are interested in outstanding scientists who are willing to take on new challenges, with an excellent track record, international recognition, experiences and skills in astrophysics, cosmology, particle physics, superconducting sensor development, cryogenic systems, or related fields.

Applicants should have a Ph.D. in Physics or a related field and more than three years of working experience after receiving a Ph.D. with an outstanding record in astrophysics, cosmology, superconducting sensor development, cryogenic instrumentation, or related fields.

As a WPI research center, QUP is designed to establish an international environment where more than 30% of researchers are non-Japanese. English is the official language of QUP. We will build a diverse community of scientists, and we strongly encourage female and international applicants. About 40% of initial PIs at QUP are female.

The posting shall remain open until the position is filled. However, for full consideration, we encourage all candidates to apply by July 31, 2022. Applicants should submit curriculum vitae (with an email address and citizenship), a research plan, and a list of publications. Applicants should also ensure that at least five letters of reference are submitted on their behalf. They should be uploaded at Application Form ( <https://academicjobsonline.org/ajo/jobs/21845> ). Note that they need to sign up with [AcademicJobsOnline.org](https://academicjobsonline.org).

Email inquiries regarding the application process may be sent to [qup\\_job\\_inquiry@ml.post.kek.jp](mailto:qup_job_inquiry@ml.post.kek.jp).

**Application Materials Required:**

**Submit the following items online at this website to complete your application:**

- Curriculum Vitae
- Research plan



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- Publication list
- Five or more reference letters (to be submitted online by the reference writers at this site)

**And anything else requested in the position description.**

**Further Info:**

<https://www2.kek.jp/qup/en/>

QUP Job Contact <[qup\\_job\\_inquiry@ml.post.kek.jp](mailto:qup_job_inquiry@ml.post.kek.jp)>

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