



# The International Symposium on Quantum Science, Tehcnology and Innovation: QUANTUM INNOVATION 2021

JAPAN established "Quantum Technology Innovation Hubs: QIH" in February 2021 by the government of JAPAN and 8 largest institute in the field of Quantum technology of JAPAN, based on "Japan's Quantum Technology Innovation Strategy". To commemorate QIH's birth, we will hold the International Symposium "QUANTUM INNOVATION 2021".

QUANTUM INNOVATION 2021, the International Symposium on Quantum Science, Technology and Innovation, will be held as a virtual conference from Tuesday, December 7th, through Thursday, December 9th.

This symposium is mainly organized by RIKEN, and National Institute of Information and Communications Technology (NICT) is one of the co-organizers.

#### https://quantum-innovation.riken.jp/

The topics of the meeting cover broad aspects of quantum technology including quantum computing, quantum sensing, quantum cryptography and quantum communication with a focus on the latest outstanding achievements in the field of quantum technology and its future trends and needs.

The aim of this symposium is to introduce quantum information and associated technologies with the trends in practical applications through guest speeches and technical sessions of each field. We expect to share a common view on the current study status including implementation results in U.S.A, EU, and Japan as well as to promote international collaborations through the meetings with key persons from each country. We look forward to your participation.

#### [ Program ]

https://quantum-innovation.riken.jp/cryptography.html

#### [ On-line Registration ]

https://www.kazasdake.com/case7/user/entry.html?event=4PcUWVZx00199

All sessions will be held in English. Registration is free of charge.

We kindly ask you to register beforehand.

Also, we would appreciate it if you could introduce this event to your colleagues and students in the relevant field of in your organization and your friend.

If you have any questions, feel free to contact me.

Contact:

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### \*QIH: Quantum Technology Innovation Hubs

Regarding quantum technology, from the perspectives of further increasing the depth of research and human resources that have been accumulated over many years at Japanese universities and research institutes, and of ensuring the diversity of basic research, it is important for the national government to enhance and strengthen continuous support for a wide range of research at institutions.

In addition, from the perspective of securing and strengthening international competitiveness, centering on the technological fields in which Japan retains its strengths and competitiveness, human resources and technologies should be gathered according to the characteristics of the technology. It is extremely important to form hubs where industry, academia and government can collaborate together on open innovation, all through on basic research, technical demonstration, intellectual property management and human resource development, etc. As such international research and development hubs, a new "Quantum Technology Innovation Hubs (International Hubs)" should be established.

The hubs will bring together excellent researchers and engineers from Japan and overseas, centered on national research institutes and universities, attract active investment from companies, etc., and organize collaboration between universities and companies. At the same time, we will develop and build their roles to play as a core for developing human resources in quantum technology field that will lead the future by coordinating connections among multiple universities and graduate schools.

https://qih.riken.jp/en/

#### \*RIKEN

RIKEN is Japan's largest and most comprehensive research organization for basic and applied science and a world leader in a diverse array of scientific disciplines.

For nearly a century since its foundation in 1917, RIKEN has fostered pioneering, innovative research in fields spanning the entire range of the natural sciences, from developmental biology and neuroscience to quantum physics and computer science.

Today, RIKEN encompasses a network of world-class research centers across Japan, with main campuses in Wako, Tsukuba, Yokohama, Kobe and Harima offering state-of-the-art facilities that rank among the best in the world. This high-quality, high-performance research environment, combined with a uniquely bottom-up approach to scientific innovation, has enabled RIKEN to foster an environment in which researchers are able to thrive.

RIKEN is also an international institute, with more than 600 non-Japanese research personnel from around the world.

https://www.riken.jp/en/

\*NICT: National Institute of Information and Communications Technology of JAPAN As Japan's sole National Research and Development Agency specializing in the field of information and communications technology, NICT is charged with promoting ICT sector as well as research and development in ICT, which drives economic growth and creates an affluent, safe and secure society.





As our five priority areas for R&D, NICT will be advancing R&D in the fields of advanced electromagnetic wave technology, innovative networks, cybersecurity, universal communication, and frontier science. Furthermore, in accordance with government strategy, NICT will also actively be promoting R&D in four strategic research fields (Beyond 5G, AI, quantum ICT, and cybersecurity), which are essential cutting-edge technologies for next-generation ICT infrastructure for the early realization of Society 5.0.

NICT promotes the full spectrum of research and development in ICT from basic to applied research with an integrated perspective, and thus promotes the advancement of Japan as an intellectual nation that leads the international community. Moreover, NICT forms close ties with the academic and business communities in Japan as well as with research institutes overseas and returns its R&D findings to society in a broad range of fields.

https://www.nict.go.jp/en/