RIKEN QUANTUM COMPUTING

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39th RQC Colloquium

Quantum Computer Architecture from FTQC to Near-Future Quantum Processors

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November 7, 2025(Fri) **15:30–16:30**(JST)

This colloquium will be held in **HYBRID format**.
On-site Venue: Wako C61 Wako Welfare and Conf. 2F Large Meeting Room
Online Venue: Zoom. To receive the link, register in advance at https://krs2.riken.jp/m/rqc_registration_form

The theory of quantum computer architecture has started with the question, how quantum computer could be built, if ever possible. As fault-tolerant implementation is essential for quantum computer to perform as quantum computer, the theory of quantum computer architecture is to show how we can achieve fault-tolerance implementation in a way that we can evaluate the performance. The scalability of the design is essential for the experimental feasibility, however it may not be enough for a practical implementation. In this talk, we review the essence in the theory of quantum computer architecture and expand the ideas to various quantum computation including quantum machine learning.