



Quantum Computing "Arena" for Quantum Future Industry Development

- The path to Japan's quantum future society depends on both technological advancement and the development of a skilled quantum workforce.
- AIST/G-QuAT will gather several types of quantum computers in one place, allowing the users to directly compare their performance and discover their potential.
- A quantum computing "arena" is one of the keys milestone to making this future a reality, and it will be available in the spring of 2025.

Quantum computing "arena" coming in spring 2025



Quantum-AI-ready Service and Software Stack



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Quantum Inspired Machine Fuiitsu DA, Amplify AE, etc

Conta

er Engine: Singularity CE

Quantum Computers:

World's fastest 41-qubit quantum circuit simulation using 512 GPUs



cuQuantum Appliance multi-node weak scaling performance from 30 to 40 qubits for complex 64 More than 3x faster than SoTA (mol/ulars on A64FX-based cluster)

QURI Parts: cuQuantum-enabled open source quantum library





AIST SC24 Web Site https://www.digiarc.aist.go.jp/event/sc2024/