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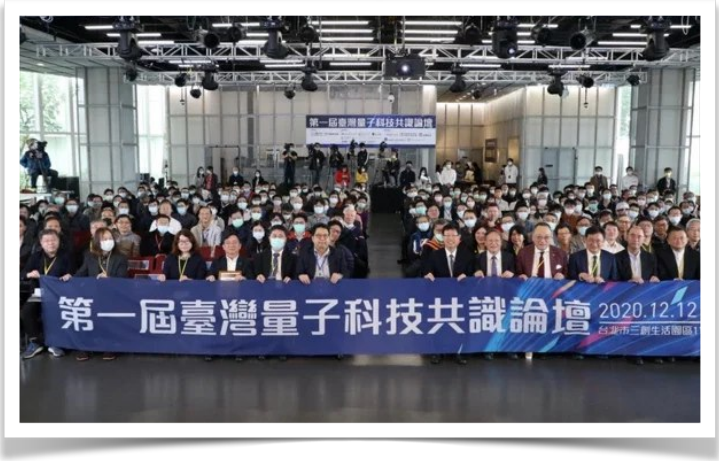

2020 Fusion the ideas of quantum computer

The first fusion the ideas of quantum computer, jointly organized by Taiwan Association of quantum computation and information technology(TAQCIT) and Hon Hai Research Institute, was launched on Dec. 12, 2020. This forums invited Prof. **William D. Oliver**, Director of MIT Quantum Engineering Center and Dr. **Norishige Morimoto**, CTO and Vice President of Research & Development, IBM Japan, to give us online speaks. The topics of two speakers were “3D integration on superconducting qubit coherence” and “Future of computing.” More than 300 experts attended this event and participate in accelerating the development of quantum computing in Taiwan.

The six topics planned are “Universal quantum computer”, “Development strategy of quantum computer”, “Quantum algorithms and applications”, “Quantum inspired computer”, ”Quantum eduction K-22” and “Conversation with scientists”.

Topic
Universal quantum computer
Development strategy of quantum computer
Quantum algorithms and applications
Quantum inspired computer
Quantum eduction K-22
Conversation with scientists

MIT Quantum Hackathon

iQuHACK (interdisciplinary Quantum HACKathon) 2021 is MIT's second annual quantum hackathon and aim to bring people from a diverse set of backgrounds, including physics, computer science, and chemistry, together to explore improvements and applications of near-term quantum devices. As a part of iQuHACK, MIT is also hosting a workshop on Friday, *January 29th.*

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QHACK

Xanadu presents QHack, the premiere quantum machine learning hackathon, taking place Feb 17-27, 2021.

3 days of engaging presentations and 10 days of quantum hackathon challenges. Participation is completely free and all levels of experience are welcome.

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The Open Science Prize: Solve for SWAP gates and graph states

Today, we're excited to announce the IBM Quantum Awards: Open Science Prize, an award totaling $100,000 for any person or team who can devise an open source solution — using IBM quantum systems — to two important challenges at the forefront of quantum computing based on superconducting qubits:

- Reducing gate errors
- Increasing circuit fidelity for graph state preparation

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Single-electron operations in a foundry-fabricated array of quantum dots

Silicon quantum dots are attractive for the implementation of large spin-based quantum processors in part due to prospects of industrial foundry fabrication. However, the large effective mass associated with electrons in silicon traditionally limits single-electron operations to devices fabricated in customized academic clean rooms.

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IBM Quantum Computer Hub at National Taiwan University

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