

Start	End	Minutes	Session Title	Speaker
Day 1 - January 21 (Tue)				
09:00	09:30	30	(Registration)	
09:30	09:40	10	Opening Speech	Hsi-Sheng Goan (Professor, NTU)
09:40	10:00	20	IBMQuantum Update	Yuri Kobayashi (Workforce & Education Global Lead, IBM Quantum)
10:00	11:00	60	Qiskit 1.0 Overview & Basics	Boseong Kim (Workforce & Education, IBM Quantum)
11:00	11:30	30	(Break)	
11:30	13:00	90	Quantum Chemistry - Hamiltonian Simulation - Jordan Wigner Transformation - Trotter Suzuki Decomposition - Time-evolution Simulation with Qiskit workflow	Yuri Kobayashi (Workforce & Education Global Lead, IBM Quantum)
13:00	14:00	60	(Lunch)	
14:00	15:30	90	Quantum Machine Learning	Boseong Kim (IBM Quantum Workforce & Education)
15:30	15:50	20	(Break)	
15:50	17:20	90	Improving energy estimation of a Fermionic Hamiltonian with sample-based quantum diagonalization (SQD) - SQD presentation - SQD tutorial	Kevin Sung (Quantum Software Developer, IBM Quantum)
17:20	17:25	5	Wrap- up for Day 1	Yuri Kobayashi (Workforce & Education Global Lead, IBM Quantum)
17:25	17:30	5	Closing Speech for Day 1	Hsi-Sheng Goan (Professor, NTU)
Day 2 - January 22 (Wed)				
09:00	09:30	30	(Registration)	
09:30	09:40	10	Introduction of Road to Utility(R2U) Program	Kevin Sung (Quantum Software Developer, IBM Quantum)
09:40	11:10	90	Qiskit Addons and Functions - Overview of addons - Multi-product formulas (MPF) - Approximate quantum compilation with tensor networks (AQC-Tensor) - Operator backpropagation (OBP) - Sample-based quantum diagonalization (SQD)	Kevin Sung (Quantum Software Developer, IBM Quantum)
11:10	11:40	30	(Break)	
11:40	12:40	60	Designing Utility-scale workload - Error Mitigation Methods (ZNE & ZNE-PEA) - Reproducing the Nature Utility Paper	Kevin Sung (Quantum Software Developer, IBM Quantum)
12:40	12:45	5	Wrap- up for Day 2	Kevin Sung (Quantum Software Developer, IBM Quantum) Yuri Kobayashi (Workforce & Education Global Lead, IBM Quantum)
12:45	12:50	5	Closing Speech	Hsi-Sheng Goan (Professor, NTU)
12:50	14:10	80	(Lunch)	