

Program of the 12th International Workshop on Solid-State Quantum Computing

November 25—Tuesday

Opening ceremony		
08:30-08:45	Committee	Welcome Remarks
Session 1		
08:45-09:45	Franco Nori	TBA
09:45-10:30	Group Photo and Coffee Break	
Session 2		
10:30-11:00	Xiwen Guan (CAS)	Yang-Gaudin model: Spin-Charge Separation, FFLO and Luther-Emery
11:00-11:30	Lin Tian (UC Merced)	Generation of Continuous-Variable Cluster States in a Phononic Quantum Network
11:30-12:00	Hou Ian (UM)	Quantum Thermalizing Channels for Transducing Coherent Energy
12:00-14:00	Lunch and Break	
Session 3		
14:00-15:00	Yasunobu Nakamura (UTokyo)	High-fidelity Control and Readout of Superconducting Qubits
15:00-15:30	Chunqing Deng (QSCGBA)	Parallel High-Fidelity Operations in a Scalable Fluxonium Architecture
15:30-15:40	Coffee Break	
Session 4		
15:40-16:10	Ya Wang (USTC)	Quantum Entanglement between NV Centers and Their Application
16:10-16:40	Ming Gong (USTC)	Progress in Zuchongzhi-3 Superconducting Quantum Computing
16:40-17:10	Dian Tan (SZIQA)	Multimode Circuit Quantum Acoustodynamics
17:10-17:40	Fei Yan (BAQIS)	Efficient Implementation of Arbitrary Two-Qubit Gates Using Unified Control
17:40-18:00	Ji Chu (SZIQA)	TBA

November 26—Wednesday**Session 5**

08:30-09:30	Richard Jozsa (Un.Cambridge)	Classically Simulatable Quantum Computations – a Perspective on the Origin of QC Power
09:30-10:00	Sen Yang (HKUST)	Optimizing the Quantum Properties of Color Centers Using Interface Engineering
10:00-10:15	Coffee Break	

Session 6

10:15-10:45	Qi Zhao (HKU)	Practical Quantum Simulation: From Closed to Open Systems
10:45-11:15	Zhirong Lin (CAS)	Superconducting Electronics for Qubit Control and Microwave Quantum State Preparation
11:15-11:45	Zhen Wang (ZJU)	TBA
11:45-14:00	Lunch, Poster and Break	

Session 7

14:00-14:30	Kai Xu (CAS)	Superconducting Quantum Simulation Based on Hamiltonian Engineering
14:30-15:00	Zhihui Peng (HNNU)	TBA
15:00-15:30	Yiheng Lin (USTC)	Experimental Progress on Open Quantum Systems with Trapped Ions
15:30-16:00	Changling Zou (USTC)	TBA
16:00-16:10	Coffee Break	

Session 8

16:10-16:40	Yu He (SZIQA)	Logical Quantum Computation and Algorithm Demonstrations in a Silicon Quantum Processor
16:40-17:10	Gang Cao (USTC)	Circuit QED for Gate-Defined Semiconductor Quantum Dot
17:10-17:40	Hao Tang (SJTU)	TBA
17:40-18:00	Yulong Liu (BAQIS)	Linear and Nonlinear Opto-Acoustic Manipulation in Quantum Cavity Electromechanical Devices
18:00-20:00	Dinner	

November 27—Thursday

Session 9

08:30-09:00	Xin Wang (CityU)	Efficient Pulse-Level Recompilation of Quantum Circuits: Jenga-Krotov Algorithm and Beyond
09:00-09:30	Peng Xu (CAS)	A Fiber Array Architecture for Atom Quantum Computing
09:30-10:00	Qi-Ming Chen (Aalto University)	Computed Tomography of Propagating Microwave Photons
10:00-10:10	Coffee Break	

Session 10

10:10-10:30	Sai Li (SCNU)	Physical Parameter Measurement in Superconducting Circuits
10:30-10:50	Ziyue Hua (THU)	Fock-Space Optics: Principles and Quantum-enhanced Metrology
10:50-11:10	YanJun Ma (BAQIS)	Improving Coherence and Stability of Superconducting Qubits by Thermal Annealing in Vacuum
11:10-11:30	Wen Zheng (NJU)	Exploring Long-Rang Coupling Architectures and Qutrit Control in Transmons
11:30-11:40	Closing Remark	
11:40-14:00	Lunch and Break	
14:00-15:30	Shishan Quantum Computation and Quantum Detection Laboratory Tour & Rigol Technologies Co.,Ltd. Tour	