

Program of 2022 Quantum Science, Engineering and Technology Workshop

Location: King's Resort and Spa
No. 72, Jinshui Village, Taian Township, Miaoli, Taiwan, 36541

Day1: Oct. 15, 2022

Time	Talk Title
09:30 am ~ 10:00 am	Registration
10:00 am ~ 10:05 am	Opening
Session Chair: Prof. Jie-Hong Jiang (江介宏), Department of Electrical Engineering	
10:05 am ~ 10:25 am	Prof. Jiun-Haw Lee (李君浩), Department of Electrical Engineering KD 光量子通訊技術
10:25 am ~ 10:45 am	Prof. Chiao-Hsuan Wang (王喬萱), Department of Physics Toward the fundamental limits of efficient quantum transduction
10:45 am ~ 11:05 am	Prof. Hao-Chung Cheng (鄭皓中), Department of Electrical Engineering Understanding the fundamental capabilities of quantum information processing
11:05 am ~ 11:20 am	Tea Break
Session Chair: Prof. Yuan-Chung Cheng (鄭原忠), Department of Chemistry	
11:20 am ~ 11:40 am	Prof. Jie-Hong Jiang (江介宏), Department of Electrical Engineering A Symbolic Approach to Exact Quantum Circuit Simulation and Verification
11:40 am ~ 12:00 pm	Prof. Yen-Huan Li (李彥寰), Department of Computer Science and Information Engineering Learning & optimization in the quantum setup
12:00 pm ~ 12:20 pm	Prof. Ying-Jer Kao (高英哲), Department of Physics Hybrid quantum-classical machine learning based on tensor network and variational quantum circuit
12:20 pm ~ 14:00 pm	Lunch
Session Chair: Prof. Jiun-Haw Lee (李君浩), Department of Electrical Engineering	
14:00 pm ~ 14:20 pm	Prof. Chi-Te Liang (梁啟德), Department of Physics Phase transitions in two dimensions
14:20 pm ~ 14:40 pm	Prof. Mario Hofmann (謝馬利歐), Department of Physics Emergent electronic properties in metallic nanoassemblies
14:40 pm ~ 15:00 pm	Prof. Chaw-Keong Yong (楊超強), Department of Physics Light-matter integration in atomically thin quantum materials
15:00 pm ~ 15:20 pm	Prof. Guin-Dar Lin (林俊達), Department of Physics Trapped ion quantum computing: Our progress and outlook
15:20 pm ~ 15:30 pm	Group Photos
15:30 pm ~ 15:50 pm	Tea Break
15:50 pm ~ 18:00 pm	Free discussion among research groups
18:00 pm ~ 20:00 pm	Dinner
Session Chair: Prof. Ying-Jer Kao (高英哲), Department of Physics	
20:00 pm ~ 20:20 pm	Prof. Yuan-Chung Cheng (鄭原忠), Department of Chemistry On Quantum Chemistry and Quantum Computation

20:20 pm ~ 20:40 pm	Prof. Sheng-Der Chao (趙聖德), Institute of Applied Mechanics A PhyMath approach to quantum algebra
20:40 pm ~ 21:00 pm	Prof. Hsi-Sheng Goan (管希聖), Department of Physics Silicon-based quantum-dot quantum computing
21:00 pm ~ 21:30 pm	Discussion on the short, medium and long-term research goals for the Center for Quantum Science and Engineering (CQSE)
21:30 pm ~	The End

Day2: Oct. 16, 2022

07:00 am ~ 09:00 am	Breakfast
09:00 am ~ 11:00 am	Free discussion among research groups
11:00 am~	Departure