

Symposium on Quantum Computing and Quantum Optics II

May 24-26, Zhejiang University (211 Shaoke Building, Yuquan Campus),
Hangzhou, China

May 24, Friday Morning		
Session I, Chairman: Joe Eberly		
8:00-8:05	Shi-Yao Zhu, <i>Zhejiang University, China</i>	Opening remarks
8:05-8:50	Marlan O. Scully <i>Texas A&M University, USA</i>	On Bose condensates, squeezed light and black holes
8:50-9:20	Hongxing Xu <i>Wuhan University, China</i>	Plasmonic Nanocavity
9:20-9:50	M. Suhail Zubairy <i>Texas A&M University, USA</i>	Erasing memory-Protecting quantum coherence and entanglement
9:50-10:20	Coffee Break, Taking photos	
Session II, Chairman: Marlan O. Scully		
10:20-10:50	Joe Eberly <i>University of Rochester, USA</i>	Single-Photon Interference, Duality, Entanglement, and Delayed Choice Experiments
10:50-11:20	Xiaobo Zhu <i>University of Science and Technology, China</i>	Genuine 12-Qubit Entanglement on a Superconducting Quantum Processor
11:20-11:50	Barry Garraway <i>University of Sussex, UK</i>	Dressed-atom potentials for matter-wave interference
11:50-12:20	Anatoly Svidzinsky <i>Texas A&M University, USA</i>	Excitation of cavity modes by a moving atom through virtual transitions

May 24, Friday Afternoon		
Session I, Chairman: Hongxing Xu		
13:30-14:00	Peter Nordlander <i>Rice University, USA</i>	Quantum Plasmonics and Applications in Light Harvesting
14:00-14:30	Kohzo Hakuta <i>University of Electro-Communications, Japan</i>	Nanofiber Cavity-QED for Manipulating Single Photons
14:30-15:00	Ed Fry <i>Texas A&M University, USA</i>	Research Capabilities via an Ultrahigh Diffuse Reflecting Material
15:00-15:30	Coffee Break, Poster Session	
Session II, Chairman: Ed Fry		
15:30-16:00	Olga Kocharovskaya <i>Texas A&M University, USA</i>	Quantum optics with x-rays: Dynamical control of Resonant Interaction
16:00-16:30	Ralf Rohlsberger <i>DESY, Germany</i>	Quantum Optics and Coherent Control with Magnons
16:30-17:00	Joerg Evers <i>Max-Planck Institute, Heidelberg, Germany</i>	Simulating control fields for nuclear quantum optics using mechanical motion
17:00	Dinner	

May 25, Saturday Morning		
Session I, Chairman: Haohua Wang		
8:00-8:30	Andrew Cleland <i>University of Chicago, USA</i>	Violating Bell's inequality with remotely connected superconducting qubits
8:30-9:00	Can-Ming Hu <i>University of Manitoba, Canada</i>	Level Attraction: Cavity Spintronics Finds a New Path
9:00-9:30	Luming Duan <i>Tsinghua University, China</i>	Quantum network and quantum machine learning
9:30-10:00	Amnon Aharony & Ora Entin <i>Ben Gurion University, Israel</i>	Time reversal symmetry and spin splitting in mesoscopic networks
10:00-10:20	Coffee Break, Poster Session	
Session II, Chairman: Da-Wei Wang		
10:20-10:50	Quan Li <i>The Chinese University of Hong Kong, HK</i>	Investigating mechanical property of soft materials by diamond quantum sensing
10:50-11:20	Phil Hemmer <i>Texas A&M University, USA</i>	Quantum enhanced biosensing with diamonds and phosphors
11:20-11:50	Ren-Bao Liu <i>The Chinese University of Hong Kong, HK</i>	Characterization of correlations in a quantum bath
11:50-12:20	Gangqin Liu <i>Institute of Physics, CAS, China</i>	Coherent quantum control of nitrogen-vacancy centre spins near 1000 kelvin

May 25, Saturday Afternoon		
Session I, Chairman: Ren-Bao Liu		
13:30-14:00	Chaoyang Lu <i>University of Science and Technology, China</i>	Quantum light source engineering towards “quantum supremacy”
14:00-14:30	Joachim von Zanthier <i>University of Erlangen-Nuremberg, Germany</i>	Super- and subradiance in free space
14:30-15:00	Da-Wei Wang <i>Zhejiang University, China</i>	Superradiance, subradiance and chirality in cold qubits and hot atoms
15:00-17:30: Tour around the West Lake		
18:00-20:00: Dinner honoring Marlan O. Scully at the Zhejiang Narada Grand Hotel (Restaurant Yuntian Ge on the 2 nd floor of the hotel)		

May 26, Sunday Morning		
Session I, Chairman: Luming Duan		
8:00-8:30	Michael Fleischhauer <i>Univ. of Kaiserslautern, Germany</i>	Many-body physics of Rydberg polaritons
8:30-9:00	Miguel Orszag <i>Universidad Mayor, Chile</i>	Fisher Information, weak values and correlated noise in interferometry
9:00-9:30	Yasunobu Nakamura <i>University of Tokyo, Japan</i>	Single-Photon Detectors in Microwave Quantum Optics
9:30-10:00	Jian-Wei Pan <i>University of Science and Technology of China, China</i>	Scalable quantum information processing with photons and cold atoms
10:00-10:20	Coffee Break, Poster Session	
Session II, Chairman: Jian-Qiang You		
10:20-10:55	Franco Nori <i>RIKEN, Japan</i>	Quantum optics without photons
10:55-11:25	Haohua Wang <i>Zhejiang University, China</i>	Observation of multi-component atomic Schrodinger cat states of up to 20 qubits
11:25-11:55	Dawei Lu <i>Southern University of Science and Technology, China</i>	Quantum Simulation of Topological Orders using NMR
11:55-12:25	Luqi Yuan <i>Shanghai Jiao Tong University, China</i>	Synthetic dimension in photonics

May 26, Sunday Afternoon		
Session I, Chairman: Bo Yan		
13:30-14:00	Gediminas Juzeliunas <i>University of Vilnius, Lithuania</i>	Non-Abelian geometric phases for periodically driven systems
14:00-14:30	Yao Chen <i>University of Science and Technology of China, China</i>	Critical dynamics across the atomic resonance
14:30-15:00	Xiong-Jun Liu <i>Peking University, China</i>	Emergent topology and symmetry-breaking order in correlated quench dynamics
15:00-15:30	Coffee Break	
Session II, Chairman: Phil Hemmer		
15:30-16:00	Vlad Yakovlev <i>Texas A&M University, USA</i>	Towards quantum spectroscopy and imaging of biological systems
16:00-16:30	Delong Zhang <i>Zhejiang University, China</i>	Bond-Selective Imaging Based on Molecular Vibrational Fingerprint
16:30-17:00	Konstantin Dorfman <i>East China Normal University, China</i>	Resolving homogeneous broadening by multidimensional spectroscopy in EIT regime
17:00: Dinner		