

MCQST Munich Conference on Quantum Science & Technology 2021

Time	Monday, 19 July	Tuesday, 20 July	Wednesday, 21 July	Thursday, 22 July	Friday, 23 July
11:00			Poster Session 2		
12:45	Welcome Keynote	Mingling			
13:00	Luming Duan Tsinghua Experimental progress towards realization of quantum repeaters	Leticia Tarruell ICFO Realizing a one-dimensional topological gauge theory in an optically dressed Bose-Einstein condensate	Uwe-Jens Wiese Univ. of Bern A New Concept for the Momentum of a Particle in a Space with Impenetrable Boundaries	Philipp Hauke Univ. Trento High-energy physics at ultracold temperatures - quantum simulation of lattice gauge theories	Glaucia Murta HHU Düsseldorf Quantum cryptography with multipartite entanglement
13:35	Emanuele Distante MPQ & MCQST Quantum network with photon-mediated interactions between distant modules	Richard Schmidt MPQ & MCQST Many-body physics of two-dimensional materials and ultracold atoms	Daniele Oriti LMU & MCQST The universe as a quantum many-body system	Johannes Zeiher MPQ & MCQST Observation of KPZ superdiffusion in a Heisenberg quantum magnet	Christian Deppe TUM & MCQST Communication over a quantum broadcast channel with cooperation between the receivers
14:10	Round Tables	Round Tables	Round Tables	Round Tables	Round Tables
14:30	Jonathan Home ETH Zürich Quantum computation with trapped ions	David Pérez Garcia UC Madrid Thermalization in Kitaev's quantum double models via Tensor Network techniques	Christian Degen ETH Zurich Quantum Sensors in Diamond: Technology and Applications	Barbara Kraus UIBK Verifying and testing quantum devices	Tanya Zelevinsky Columbia Univ. Ultracold Molecule Clocks
15:05	Max Werninghaus WMI & MCQST Optimal Control of Superconducting Qubits	Simone Warzel TUM & MCQST Phase transitions and replica-symmetry breaking in quantum glasses	Nathalie Picqué MPQ & MCQST TBA	Christian Schilling LMU & MCQST Ensemble reduced density matrix functional theory for excited states (...) of Pauli's exclusion principle	Christian Ochsenfeld LMU & MCQST Towards an exact quantum-mechanical description of molecular matter (...)
15:40	Round Tables	Round Tables	Round Tables	Round Tables	Round Tables
16:00	Topical table: tbd Parallel meetings covering various topics relevant to the QST and scientific community	Introduction to the Munich Quantum Valley	William Oliver MIT Quantum Engineering of Superconducting Qubits	Topical table: tbd Parallel meetings covering various topics relevant to the QST and scientific community	Award Ceremony & Closing
16:30	Andrea Damascelli Univ. of British Columbia Quantum materials in the time domain		Jerry M. Chow IBM Quantum Quantum circuits powering the future of quantum computing	David Huse Princeton Many-body localization	Alex Retzker Hebrew Univ. Frequency estimation and resolution at the nano-scale
17:05	Frank Pollmann TUM & MCQST Exploring Topological Phases on Quantum Processors		Round Tables	Alexander Högele LMU & MCQST Excitons in layered semiconductors and heterostructures	Eva Weig TUM & MCQST Spectral evidence of squeezing in a driven, nonlinear nanomechanical resonator
17:40	Round Tables	17:30 Group picture	Advisory Board Meeting Closed Session	Round Tables	Round Tables
18:00	Poster Session 1	Munich Quantum Valley Meet & Greet			
18:30					
19:00		Quantum Rallye			

-  Research Unit A
Quantum Information Theory
-  Research Unit C
Quantum Computing
-  Research Unit E
Quantum Metrology and Sensing
-  Research Unit G
Explorative Research
-  Research Unit B
Quantum Simulation
-  Research Unit D
Quantum Communication
-  Research Unit F
Quantum Matter
-  **Special Sessions**