MQV Annual Meeting 2024

Scientific Posters (Consortia), Day 1, 8th October 2024

Please note that you have to take care of the printing of your posters yourself!

Poster Place	MQV Affiliation	Title of the Posters	Presenters
1	K1-1	Perfect State Transfer	Federico Roy
2	K1-2	Passivation Efforts using Organic Molecules	Harsh Gupta
3	K1-3	TWPAs	Michael Haider
4	K3-1	Quantum Computing with Ultracold Strontium Atoms	Max Melchner, Lorenzo Festa
5	K3-2	Iterative assembly of large-scale neutral-atom arrays	Flavien Gyger
6	K3-3	Towards entanglement-enhanced quantum metrology with cold 88Sr atoms	Sofus Laguna Kristensen
7	K4-1	Pauli path simulations of noisy quantum circuits beyond average case	Guillermo González
8	K4-2	Filter algorithm for dynamics at finite temperature	Esther Cruz
9	K4-3	Time-Optimal Cooling and Entangling	Emmanuel Malvetti
10	K5-1	Q-DESSI Update on the MQSS: Munich Quantum Software Stack	Q-DESSI Team
11	K5-2	The Munich Quantum Toolkit (MQT)	Q-DESSI Team
12	K5-3	Compiler Development for Neutral-Atom based Quantum Computing	Q-DESSI Team
13	K6-1	Development of TiN/AlN-based superconducting qubit components	Benedikt Schoof
14	K6-2	Technology and Simulations for Quantum Computer Devices	Simon Mundinar, Michael Jank (Lars Nebrich)
15	K6-3	Status of Electronic Development	Thomas Thönes (Jens Länglacher)
16	K7-1	Quantum User Study: Understanding the User Needs and Requirements as a User-centric Research Computing Center	Hai Nguyen
17	K7-2	Towards understanding potentials of quantum kernels of classical datasets	Alona Sakhnenko
18	K7-3	An Oracle Generator for Grover's Algorithm	Xiao-Ting Michelle To
19	K8-1	Optimal control efforts of K8	Leo Van Damme, Santana Lujan, and Michael Hartmann
20	K8-2	Hardware modelling	Group of Michael Hartmann and Christian Mendl

Scientific Posters (Consortia), Day 2, 9th October 2024

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Poster Place	MQV Affiliation	Title of the Posters	Presenters
1	K1-1	17 Qubit Status	Max Werninghaus
2	K1-2	SQQC Fab / Scaling	Leon Koch
3	K1-3	Subharmonic drives of fluxonium qubits	Christian Schneider
4	K3-1	Alternative qubit platform based on fermionic 171Yb atoms	Yilong Yang
5	K3-2	Fast optical switching in photonic modulator networks	Klara Meyer-Hermann
6	K4-1	Discovering Fault-Tolerant Quantum Circuits and Quantum Error Correction Codes via Reinforcement Learning	Jan Olle and Remmy Zen
7	K4-2	Variational Neural and Tensor Network Approximation of Thermal States	Sirui Lu
8	K5-1	QDMI - Quantum Device Management Interface: Hardware-Software Interface of the Munich Quantum Software Stack (MQSS)	Q-DESSI Team
9	K5-2	An FPGA-based Quantum Control System with a Runtime Configurable Signal Generator	Q-DESSI Team
10	K5-3	Block encoding of matrix product operators	Group of Christian Mendl
11	K6-1	High-density flexlines	Hans Adel, Elias Meltzer
12	K6-2	Millikelvin Control Electronics Integration	Christian Carlowitz, Nicole Zocher
13	K6-3	Tantalum thin films sputtered on silicon and on different seed layers: material characterization and coplanar waveguide resonator performance	Moritz Singer
14	K7-1	Supporting End-Users in Implementing Quantum Computing Applications	Group of Robert Wille
15	K7-2	The QACI project at Fraunhofer IIS	Christian Ufrecht, Friedrich Wagner, Theobald Fuchs
16	K7-3	Quantum Multi-agent Reinforcement Learning for Aerospace Communication	Theodora-Augustina Dragan
17	K8-1	Error-correction I	Groups of Markus Müller, Jens Eisert, and Florian Marquardt
18	K8-2	Error-correction II	Groups of Markus Müller and Michael Hartmann
19	K8-3	Applications in quantum computing	Groups of Michael Hartmann and Jens Eisert
20	K8-4	Verification and benchmarking	Group of Jens Eisert

Scientific Posters (Lighthouse Projects), Day 3, 10th October 2024

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Poster Place	MQV Affiliation	Presenters
1	K6/Scalable Hardware & Systems Engineering (SHARE)	Tbd (TUM-WSI)
2	LTP Quantum Measurement and Control for the Enablement of Quantum Computing and Quantum Sensing (QuMeCo)	Santiago Lopez Huidobro
3	LTP Quantum Measurement and Control for the Enablement of Quantum Computing and Quantum Sensing (QuMeCo)	Mahmoud Kalash
4	LTP Free-Electron States as Ultrafast Probes for Qubit Dynamics in Solid-State Platforms	Soufiane El-Kabil
5	LTP High-Efficiency Stabilizer Codes (HESC)	Stefano Tinelli
6	LTP AI-Assisted Design for Scalable, Efficient and Highly Structured Quantum Circuits for Quantum Chemistry (KID-QC²)	Abhishek Dubey
7	LTP Highly Scalable Technology Modules for Quantum Computing, Quantum Communication and Quantum Sensing with SiC (TeQSiC)	Martin Hofmann
8	LTP Networked Quantum Systems (NeQuS)	Michelle Lienhart
9	LTP Networked Quantum Systems (NeQuS)	Nadeem Akhlaq
10	RnD Rabl/LTP NeQuS	Joan Agusti
11	RnD Rabl/LTP NeQuS	Syeda Aliya Batool
12	RnD Rabl/LTP NeQuS	Philipp Schulze-Hagen
13	RnD Stute	Lucas Kirchbach
14	RnD Vogl	Tjorben Matthes
15	LTP Quantenkommunikationsinfrastruktur (QuKomIn)	Dominique Elser
16	K10/Quantum Technology Park & Entrepreneurship (QTPE)	Rosaria Cercola
17	K9/Quantum Science & Technology Education in Bavaria (QST-EB)	Katja Barthelmi
18	K1/Superconducting Qubit Quantum Computer (SQQC)	Murali Krishna Kurmapu
19	LTP Quantum Measurement and Control for the Enablement of Quantum Computing and Quantum Sensing (QuMeCo)	Prakiran Baidya
20	K4/Theoretical Quantum Computing (THEQUCO)	Kiran Adhikari