

Recent Advances in Quantum Computing and Technology (ReAQCT)

Wednesday, June 19, 2024

June 19th: Registration (8:00 AM - 8:45 AM)

June 19th: Plenary session 1 - Auditorium (9:00 AM - 10:30 AM)

time	[id] title	presenter
9:00 AM	[64] ReAQCT Opening	Dr CSILLING, Ákos
9:20 AM	[2] Shortcuts to quantum advantage and their relationship to the superconducting platform	WILHELM-MAUCH, Frank
10:00 AM	[3] Materials challenges in quantum sensing with diamond nitrogen-vacancy center	GALI, Ádám

June 19th: Plenary session 2 - Auditorium (11:00 AM - 12:30 PM)

time	[id] title	presenter
11:00 AM	[9] Munich Quantum Software Stack: Seamlessly Integrating Quantum Computing into HPC	ECHEVARRIA, Jorge
11:20 AM	[10] Recent developments in open-source design tools and QPUs	TAKALA, Eelis
11:40 AM	[11] Hybrid Tree Tensor Networks for Quantum Simulation	SCHUHMACHER, Julian
12:00 PM	[12] Statistical phase estimation and error mitigation on a superconducting quantum processor	BLUNT, Nick

June 19th: Poster Session - 1st floor Aula (1:30 PM - 2:20 PM)

June 19th: Plenary session 3 - Auditorium (2:20 PM - 3:30 PM)

time	[id] title	presenter
2:20 PM	[14] Architecture considerations for superconducting quantum processors	FRISK KOCKUM, Anton
2:50 PM	[13] Materials science with quantum computers: use cases and technical work	STROHM, Thomas

June 19th: Parallel 2A: Quantum sensing - Cello (4:00 PM - 5:20 PM)

time	[id] title	presenter
4:00 PM	[27] Ab-initio theory of nuclear spin flip processes within NV center of diamond via orbital degrees of freedom	THIERING, Gergo THIERING, Gergő
4:20 PM	[39] Activation of metrologically useful genuine multipartite entanglement	TRENYI, Robert

4:40 PM	[24] Theory of charge-sensing-based noisy qubit readout of semiconductor qubits	SVASTITS, Domonkos
5:00 PM	[47] Symphony: a python package to simulate point-defect spin dynamics	BOROSS, Péter

June 19th: Parallel 2B: Quantum HW: Semiconductors a - Operetta (4:00 PM - 5:20 PM)

time	[id] title	presenter
4:00 PM	[29] Exchange-driven two-hole spin qubit in Germanium	SAEZ-MOLLEJO, Jaime
4:20 PM	[45] Bichromatic Rabi control of semiconductor qubits	GYÖRGY, Zoltán
4:40 PM	[33] In situ Resistance Control of Granular Aluminium Superinductors for Hybrid Circuit Quantum Electrodynamics	JANÍK, Marián
5:00 PM	[48] Real-time two-axis control of spin qubits	BERRITTA, Fabrizio

June 19th: Parallel 2C: Quantum HW: superconductors - Auditorium (4:00 PM - 5:20 PM)

time	[id] title	presenter
4:00 PM	[15] Superconducting flux qubits with stacked Josephson junctions	KREUZER, Alex
4:20 PM	[37] Resilient multi-mode superconducting qubit designed with evolutionary algorithms	GARCIA AZORIN, Pablo
4:40 PM	[18] Readout error mitigation on a superconducting qubit	DI GIOVANNI, Andras
5:00 PM	[38] Measuring the current-phase relation in Josephson junction using superconducting resonators	MAKK, Peter

June 19th: Parallel 2D: Q algorithms & informatics 1 - Trumpet (4:00 PM - 5:20 PM)

time	[id] title	presenter
4:00 PM	[16] Bayesian amplitude estimation	RAMOA, Alexandra
4:20 PM	[49] Quantum approximated cloning-assisted density matrix exponentiation	RODRÍGUEZ, Pablo
4:40 PM	[50] Optimizing T and CNOT Gates in Quantum Ripple-Carry Adders and Comparators	REMAUD, Maxime
5:00 PM	[34] Extensions of Digital-Analog Quantum Computation	GARCIA DE ANDOIN, Mikel

June 19th: Parallel 2E: Quantum SW engineering 1 - Cornets (4:00 PM - 5:20 PM)

time	[id] title	presenter
4:00 PM	[51] Patterns for Quantum Software Engineering	BĄCZYK, Michael
4:20 PM	[42] QDsim: A user-friendly toolbox for simulating large-scale quantum dot devices	GUALTIERI, Valentina
4:40 PM	[46] Piquasso: A Photonic Quantum Computer Simulation Software Platform	KOLAROVSKI, Zoltán
5:00 PM	[40] Benchmarking Quantum Computers: Towards a Standard Performance Evaluation Approach	PEÑA GUZMÁN, Rubén

June 19th: Social programme (7:00 PM - 9:00 PM)

time	[id] title	presenter
7:00 PM	[4] Conference dinner	