

Recent Advances in Quantum Computing and Technology (ReAQCT)

Thursday, 20 June 2024

June 20th: Tutorial session (08:00 - 09:45)

time	[id] title	presenter
08:00	[5] Tutorial: Introduction to Quantum Error Correction.	WOOTTON, James

June 20th: Plenary session 4 - Auditorium (10:00 - 11:10)

time	[id] title	presenter
10:00	[58] Fully autonomous control and characterisation of quantum devices	ARES, Natalia
10:40	[59] Realization of basic types of Andreev-molecules	CSONKA, Szabolcs

June 20th: Plenary session 5 - Auditorium (11:30 - 13:00)

time	[id] title	presenter
11:30	[60] Proof-of-principle experiments for quantum error correction	WOOTTON, James
12:00	[61] Informationally Complete Measurements and Tensor-Network Methods for Near-Term Quantum Computing	ROSSI, Matteo GELLEN, Zsolt
12:30	[62] Theory to Enable Practical Quantum Advantage	KOCZOR, Bálint

June 20th: Plenary session 6 - Auditorium (14:00 - 14:45)

time	[id] title	presenter
14:00	[41] Measurement-free fault-tolerant quantum error correction in near-term devices	HEUSSEN, Sascha HEUSSEN, Sascha
14:20	[21] Improving flux-based gates in superconducting QPUs through model learning of qubit and control stack parameters	SAHA ROY, Anurag
14:40	[65] Closing address	

June 20th: Parallel 5A: Quantum error correction - Auditorium (14:50 - 15:50)

time	[id] title	presenter
14:50	[23] Coherent errors in stabilizer codes caused by quasistatic phase damping	PATAKI, David
15:10	[28] Leakage mobility in superconducting qubits as a leakage reduction unit	GEHER, Gyorgy GEHER, Gyorgy Pal
15:30	[19] Fault-tolerant quantum computing with the parity code and noise-biased qubits	MESSINGER, Anette

June 20th: Parallel 5B: Quantum Machine Learning - Operetta (14:50 - 15:50)

time	[id] title	presenter
14:50	[17] Building Continuous Quantum-Classical Bayesian Neural Networks for a Classical Clinical Dataset	SAKHNENKO, Alona
15:10	[43] Comparison of gradient and derivative-free learning methods for quantum circuit Born machine	HUDEČEK, Vlastimil
15:30	[22] Problem-informed Graphical Quantum Generative Learning	BAKÓ, Bence

June 20th: Parallel 5C - Optimization - Cello (14:50 - 15:50)

time	[id] title	presenter
14:50	[52] Suppressing photon detection errors in nondeterministic state preparation	CZABÁN, Csaba KARÁCSONY, Márton ZIMBORAS, Zoltan KORALOVSKI, Zoltán
15:10	[30] Reinforcement Learning in Bayesian Hamiltonian Tracking for Noise-Driven Coherent Rotation of a Spin Qubit	KRZYWDA, Jan Adrian
15:30	[53] Homodyne versus Heterodyne for Quantum Measurement	TEBYANIAN, Hamid

June 20th: Parallel 5D: Q algorithms & informatics 2 - Trumpet (14:50 - 15:50)

time	[id] title	presenter
14:50	[54] Computing Classical Partition Functions: From Onsager and Kaufman to Quantum Algorithms	GARGIULO, Roberto
15:10	[20] Cumulant evolution and full counting statistics in infinite temperature quantum spin chains	VALLI, Angelo
15:30	[55] An overview on quantum algorithms for amplitude encoding of classical data into quantum computers	GONZÁLEZ CONDE, Javier

June 20th: Parallel 5E: Quantum SW engineering 2 - Cornets (14:50 - 15:50)

time	[id] title	presenter
14:50	[56] Quantum-Resilient Security Controls	GANESAN, Karthikeyan Sabari SARASWAT, Vishal
15:10	[57] QuaCiDe: A General Purpose Quantum Circuit Design and Simulation Interface	KYDROS, Asimakis
15:30	[44] Recent Advances in Responsible Quantum Computing and Technologies	SESKIR, Zeki Can

June 20th: QNL poster session (16:10 - 17:30)