
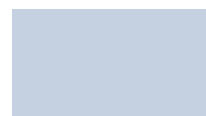


2nd Workshop “Machine Learning for Quantum Technology” - TUTORIALS

	TUESDAY, NOV. 5
10:30 - 11:30	Registration + coffee
11:30 - 13:00	Eliška Greplová - TUTORIAL 1: <i>Condensed Matter Physics with Machine Learning</i>
13:00 - 14:30	Lunch break
14:30 - 16:00	Marín Bukov - TUTORIAL 2: <i>Reinforcement Learning for Quantum Technologies</i>
16:00 - 16:30	Coffee break
16:30 - 18:00	Roger Melko - TUTORIAL 3: <i>Autoregressive models in Quantum Physics</i>

2nd Workshop "Machine Learning for Quantum Technology" - SCHEDULE

	WEDNESDAY, NOV. 6	THURSDAY, NOV. 7	FRIDAY, NOV. 8
9:00 - 9:30	Registration + opening remarks	Registration	Registration
9:30 - 10:05	Eliška Greplová <i>Autonomous Quantum Control in the age of AI</i>	Monika Aidelsburger <i>Quantum many-body systems under the microscope</i>	Vedran Dunjko <i>Provable exponential quantum advantages in learning from classical data</i>
10:05 - 10:40	Anton Frisk Kockum <i>Quantum state and process tomography with machine learning and gradient descent</i>	Simon Trebst <i>Decoding many-body teleportation</i>	Hans Briegel <i>Towards explainable AI in quantum science</i>
10:40 - 10:55	Martin Gärttner <i>Machine learning assisted quantum simulator readout</i>	Yue Ban <i>Neural-network-assisted parameter estimation for quantum detection</i>	Chenfeng Cao <i>Unveiling quantum phase transitions from traps in variational quantum algorithms</i>
10:55 - 11:20	Coffee break		
11:20 - 11:55	Christopher Eichler <i>Realizing a reinforcement learning agent for real-time quantum feedback</i>	Giuseppe Carleo <i>Neural quantum states for many-body electronic structure and dynamics</i>	Johannes Bausch <i>Machine Learning for Fault-Tolerant Quantum Computation</i>
11:55 - 12:30	Annabelle Bohrdt <i>Trying to solve quantum many-body problems with neural networks</i>	Markus Schmitt <i>(Neural) network representations of many-body wave functions</i>	Evert van Nieuwenburg <i>RL and RL for quantum systems</i>
12:30 - 12:45	Maximilian Prüfer <i>Physics-inspired machine learning models and optimal control for quantum experiments</i>	Dario Poletti <i>Paths towards time evolution with larger neural-network quantum states</i>	Matias Bilkis <i>Automatic re-calibration of quantum devices by RL</i>
12:45 - 13:00	Petr Zapletal <i>Error-tolerant quantum convolutional neural networks for symmetry-protected topological phases</i>	Gorka Muñoz-Gil <i>Representation learning reaches the lab: let machines act!</i>	Clara Wanjura <i>Quantum Equilibrium Propagation for efficient training of quantum systems based on Onsager reciprocity</i>
13:00 - 14:30	Lunch break		
14:30 - 15:05	Marín Bukov <i>Reinforcement learning transmon-qubit entangling gates</i>	Roger Melko <i>Language Models for Quantum Simulation</i>	Jonas Schuff <i>Autonomous tuning of spin qubits</i>
15:05 - 15:40	Volodymyr Sivak <i>Calibration of decoders for quantum error correction using multi-agent reinforcement learning</i>	Markus Heyl <i>Solving 2D quantum matter with neural quantum states</i>	Christof Weitenberg <i>Machine learning and ultracold quantum gases</i>
15:40 - 15:55	Maciej Koch-Janusz <i>Analyzing and constructing efficient data encoding quantum circuits</i>	Cristian Bonato <i>Learning the dynamics of Markovian open quantum systems from experimental data</i>	Closing remarks
15:55 - 16:20	Coffee break		
16:20 - 16:35	Bijita Sarma <i>Fast Hardware-efficient Quantum Gate Design using Optimal Control with Reinforcement Learning Ansatz</i>	Akash Kundu <i>Program synthesis-driven quantum architecture search for optimal quantum circuit design in variational quantum algorithms</i>	LEGEND  Invited talk (30'+5' Q&A)  Contributed talk (12'+3' Q&A)
16:35 - 17:10	Mats Granath <i>Graph neural network based decoders for quantum error correcting codes</i>	Mario Krenn <i>Towards an Artificial Muse for new ideas in Science</i>	
17:10 - 18:00	Poster flash talks (1' each) + poster setup	Poster flash talks (1' each) + poster setup	
From 18:00	Poster session A (including dinner)	Poster session B (including dinner)	