

Quantum Machine Learning Workshop

23 – 25 April 2025

Time	23 April (Day 1)	24 April (Day 2)	25 April (Day 3)
08:50 – 09:00	Opening Remarks		
09:00 – 09:45	Mario Krenn <i>“Towards an artificial muse for new ideas in Physics”</i>	Mauro Paternostro <i>“Learning your quantum environment”</i>	Ivona Brandic <i>“QML in Hybrid Classical-Quantum Environments”</i>
09:45 – 10:30	Kristan Temme <i>“Progress and challenges in quantum feature engineering”</i>	Adrià Peres Salinas <i>“Towards a framework for analyzing QML algorithms”</i>	Sofiene Jerbi <i>“Shadows of quantum machine learning and shallow-depth learning separations”</i>
10:30 – 11:00	 Coffee Break	 Coffee Break	 Coffee Break
11:00 – 11:45	Ian Walmsley <i>“Quantum Photonics in Machine Learning”</i>	Kfir Sulimany Solan <i>“Quantum-secure multiparty deep learning”</i>	Antonio Sannia <i>“Bridging Open Quantum System Theory and Quantum Reservoir Computing”</i>
11:45 – 12:30	Ulrik Lund Andersen <i>“Quantum Learning Advantage on a Photonic Platform”</i>	Valentina Parigi <i>“Reservoir Computing in Continuous Variable Multimode Quantum systems”</i>	Anas Skalli <i>“Model-free optimization algorithms for physical neural networks”</i>
12:30 – 14:00	 Lunch Break	 Lunch Break	12:30 – 12:45 Closing Remarks 12:45 – 14:00  Lunch Break
14:00 – 14:45	Vedran Dunjko <i>“When do quantum computers learn better?”</i>	Christopher Eichler <i>“Realizing a reinforcement learning agent for real-time quantum feedback”</i>	14:00  Lab Tours
14:45 – 15:30	Richard Kueng <i>“Quantum-enhanced shadow tomography of (very many) Pauli observables”</i>	Fabio Sciarrino <i>“Quantum machine learning with Hybrid photonics platform”</i>	
15:30 – 16:00	 Coffee Break	 Coffee Break	
16:00 – 16:45	Daniele Faccio <i>“Quantum optimisation and reservoir computing in random photonic networks”</i>	Tamas Krivachy <i>“Understanding Bell nonlocality in networks using generative models”</i>	
16:45 – 17:30	Valeria Cimini <i>“Experimental realization of photonic quantum extreme learning machines”</i>	Joseph Bowles <i>“How to scale generative QML to a thousand qubits”</i>	
17:30	  Poster Session		
18:30		 Conference Dinner	