MLQ 2021
Machine Learning for Quantum

Navigation

Posters

MLQ-2021 will host a non-traditional posters session consisting of <200 sec videos or animations. To stimulate creativity and participation, we offer **three £300 poster prizes**, funded by our sponsors (Quantum Machines and NVIDIA). The poster prizes will be awarded to the posters that describe the best research at the cross-road between quantum physics and machine learning, in the most creative and innovative way.

The following research will be presented at the **poster session on Tuesday 2nd March, 15:30-17:30 GMT**:

(1) Yue Ban, University of the Basque Countries, Bilbao – Spain (Q#1)
Neural-network-based parameter estimation for quantum detection

(2) Conor O'Brien, Heriot-Watt University, Edinburgh – UK (Q#1)
Nuclear Spin Detection using Reversible-Jump Markov Chain Monte Carlo

(3) Adam Zaman Chaudry, Lahore University – Pakistan (Q#1)
Characterizing quantum environments via quantum probes

(4) Brian Flynn, University of Bristol – UK (Q#1)
Quantum Model Learning Agent

(5) Raul Gonzalez-Brouwer, University of Ulm – Germany (Q#1)
NMR spectroscopy using single shallow NV centers exposed to high magnetic field gradients

(6) Clara Jahaverian, University of Technology Sydney – Australia (Q#1)
Quantum noise spectroscopy of qudits

(7) Timo Joas, University of Ulm – Germany (Q#1)
Online Adaptive Quantum Characterization of a Nuclear Spin

(8) Dominik Koutny, Palacky University Olomouc – Czech Republic (Q#1)
Deep learning of quantum entanglement from partial measurement

(9) Alexandra Ramôa Alves, University of Minho – Portugal (Q#1)
Experimental Hamiltonian Learning

(10) Kevin Singh, University of Chicago – USA (Q#1)
Improving Rydberg Atom Quantum Sensors with Machine Learning Techniques

(11) Dan Yao, Heriot-Watt Univrsity (Q#1)
Joint robust signal estimation and anomaly detection algorithm for a quantum sensor

(12) Inbar Zohar, Weizmann Institute of Science, Rehovot – Israel (Q#1)
Real time Bayesian estimation to enhance magnetic sensing using single NV center in diamond

(13) Gyeoungun Kim, Seoul National University – South Korea (Q#2)
Fast, scalable quantum dot qubit autotuning via reinforcement learning

(14) Luke Mortimer, University of York – UK (Q#2)
Evolutionary computation for adaptive quantum device design

(15) Sebastian Orbell, University of Oxford – UK (Q#2)
Bayesian methods for the efficient measurement of Rabi oscillations

(16) Alexandru Paler, Johannes Kepler University, Linz, Austria and Transilvania University, Brasov, Romania (Q#2)
Machine Learning Optimization of Quantum Circuit Layouts

(17) Dominik Vašinka, Palacký University Olomouc, Czech Republic (Q#2)
Learning the transfer function of liquid crystals at fidelity level exceeding 0.999

(18) Joshua Ziegler, National Institute of Standards and Technology – USA (Q#2)
Physics-based Data Augmentation for Automated Recognition of Noisy Device States

(19) Yidong Liao, University of Technology Sydney – Australia (Q#3)
Using Quantum Optimisation Algorithms to train variational quantum eigensolvers

(20) Carla Silva, University of Porto – Portugal (Q#3)
Exploring extrapolation methods for molecular dissociation profiles