

Session Program

19-22 Sept 2022

Machine Learning in Natural Sciences: from Quantum Physics to Nanoscience and Structural Biology

Optimization and Control

CFEL (Building 99), Seminarraum 1-3
Luruper Chaussee 149 22761 Hamburg Germany

Monday 19 September

09:15

Optimization and Control

Session | **Location:** CFEL (Building 99), Seminarraum 1-3, Luruper Chaussee 149 22761 Hamburg Germany

09:15–10:00

Turning a physical system into a self-learning machine

Speaker

Prof. Florian Marquardt

10:00–10:15

Depth requirement reduction using sequential execution

Speaker

Adrián Pérez Salinas

10:15–10:30

Reducing Barren Plateaus in Quantum Algorithm Protocols

Speaker

Lukas Broers

10:30–10:45

Characterization of Few-femtosecond Near-infrared Pulses using Machine Learning approach

Speaker

Daria Kolbasova

10:45

11:15

Optimization and Control

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11:15–12:00

Self-Correcting Quantum Many-Body Control using Reinforcement Learning with Tensor Networks

Speaker

Dr Marin Bukov

12:00–12:15

Self-Correcting Quantum Many-Body Control using Reinforcement Learning with Tensor Networks

Speaker

Ms Friederike Metz

12:15–12:30

Online adaptive estimation of decoherence timescales for a single qubit

Speaker

Muhammad Junaid Arshad

12:30–12:45

Robust quantum dot charge autotuning with Bayesian Neural Networks

Speaker

Victor Yon

12:45