

Session Program

19-22 Sept 2022

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

Understanding Machine Learning

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

Wednesday 21 September

14:30

Understanding Machine Learning

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

14:30–15:15

What do neural networks learn? On the interplay between data structure and representation learning

Speaker

Prof. Sebastian Goldt

15:15–15:30

Tensor networks and efficient descriptions of classical data

Speaker

Ivan Kukuljan

15:30

Thursday 22 September

09:00

Understanding Machine Learning

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

09:00–09:45

Towards an Artificial Muse for new Ideas and Understanding in the natural Sciences

Speaker

Dr Mario Krenn

09:45–10:30

Revealing physical concepts learned by artificial neural networks

Speaker

Dr Sebastian Wetzel

10:30