Programm der Sitzung

13.–16. Jan. 2025

LPA Special Workshop on Intelligent Systems

Plenary

Department of Physics, University of Oxford
Parks Rd, Oxford OX1 3PU, UK

Mo., 13. Januar

14:00

Plenary: Introduction

Sitzung | **Ort:** Department of Physics, University of Oxford, Parks Rd, Oxford OX1 3PU, UK

14:00–14:30 Uhr **Workshop Introduction**

Sprecher
Andreas Döpp

14:30–15:00 Uhr **Ultra-Powerful Lasers at High Repetition Rate**

Sprecher
Alec Thomas

15:00–15:30 Uhr
Technology for High-Repetition-Rate Intense Laser Laboratories (THRILL)

Sprecher
Vincent Bagnoud

15:30

16:00

Plenary: Plenary

Sitzung | **Ort:** Department of Physics, University of Oxford, Parks Rd, Oxford OX1 3PU, UK

16:00–16:45 Uhr
Single-Shot Spatio-Temporal Vector Field Measurements of Petawatt Laser Pulses

Sprecher
Sunny Howard

16:45–17:30 Uhr
Training a surrogate model of a ZEUS experiment from messy data using LLMs and ConvNets

Sprecher
Archis Joglekar

17:30

Di., 14. Januar

14:00

Plenary: Bayesian Optimization

Sitzung | **Ort:** Department of Physics, University of Oxford, Parks Rd, Oxford OX1 3PU, UK | **Vorsitzender:** Rob Shalloo

14:00–14:45 Uhr **Bayesian optimization algorithms for accelerator phy**

Sprecher
Ryan Roussel

15:30

16:00

Plenary: ML at Large Laser Labs

Sitzung | **Ort:** Department of Physics, University of Oxford, Parks Rd, Oxford OX1 3PU, UK | **Vorsitzender:** Kevin Cassou

16:00–16:45 Uhr

Advanced Machine Learning and Intelligent Control Systems for Optimizing Laser Plasma Accelerators at the BELLA Center

Sprecher
Chetanya Jain

16:45–17:30 Uhr **ML-assisted control of plasma accelerators at DESY**

Sprecher
Andreas Maier

17:30

Mi., 15. Januar

14:00

Plenary: Plenary

Sitzung | **Ort:** Department of Physics, University of Oxford, Parks Rd, Oxford OX1 3PU, UK

14:00–14:45 Uhr

Bayesian optimization of TNSA ion yield through laser spectral dispersion

Sprecher
Matthew Hill

14:45–15:30 Uhr

Surrogate Modeling and Neural Solver in Plasma Physics

Sprecher
Jeffrey Kelling

15:30

16:00

Plenary: Plenary

Sitzung | **Ort:** Department of Physics, University of Oxford, Parks Rd, Oxford OX1 3PU, UK

16:00–16:45 Uhr

Machine Learning Applications at ISIS

Sprecher
Kathryn Baker

16:45

Do., 16. Januar

14:00

Plenary: Plenary

Sitzung | **Ort:** Department of Physics, University of Oxford, Parks Rd, Oxford OX1 3PU, UK

14:00–14:30 Uhr

Active wavefront stabilization of the Apollon multi-PW laser system: first results and perspectives

Sprecher
Dr. Dimitrios Papadopoulos

14:30–15:00 Uhr

Flat wavefronts falling from the sky: astronomical adaptive optics at the 8.2 meter Subaru Telescope

Sprecher
Vincent Deo

15:00–15:30 Uhr

Automated Alignment of Beam Lines using Reinforcement Learning

Sprecher
Dr. Marko von der Leyen

15:30