Session Program

9–12 Sept 2025

Sixth IAEA Technical Meeting on Fusion Data Processing, Validation and Analysis

Physics-Based Machine Learning

Fudan University, Shanghai, China, Auditorium Hall HGX 102 (Guanghua Twin Tower)
220 Handan Road, Yangpu District, Shanghai, China 邯郸路 220 号 复旦大学

Tuesday 9 September

09:00

Physics-Based Machine Learning
Session |
Location: Fudan University, Shanghai, China, Auditorium Hall HGX 102 (Guanghua Twin Tower), 220 Handan Road, Yangpu District, Shanghai, China 邯郸路 220 号 复旦大学 |
Convener: Geert Verdoolaege

09:00–09:30 **Advancing Transparent Deep Learning for Modeling Turbulence in Fusion Plasmas**

Speaker

Mr David Garrido-Gonzalez

09:30–10:00

The Potential of Physics-Informed Neural Networks to Analyse Tokamak Diagnostic Measurements

Speaker

Dr Riccardo Rossi

10:00–10:25

When Explainable AI is not enough: Informed Machine Learning to Combine Fidelity and Interpretability

Speaker

Andrea Murari

10:25

Wednesday 10 September

13:30

Physics-Based Machine Learning

Session |
Location: Fudan University, Shanghai, China, Auditorium Hall HGX 102 (Guanghua Twin Tower), 220 Handan Road, Yangpu District, Shanghai, China 邯郸路 220 号 复旦大学 |
Convener: Andrea Murari

13:30–13:45

Prediction of NTM seed magnetic island trigger threshold in EAST based on supervised learning

Speaker
Feifei Long

13:45–14:00

Integrated modeling and experimental validation of H-mode divertor detachment and core confinement compatibility on HL-2A tokamak

Speaker
Mr Yukun Shu

14:00