

## **Session Program**

9–12 Dec 2025

# **Workshop on Digital Engineering for Fusion Energy Research**

## ***Poster Session (at PSFC)***

Cambridge, Massachusetts, USA

Hacker Reactor at MIT's iHQ. Address: 292 Main Street | MIT Bldg. E38 | Floor 7 | Cambridge, MA 02142

## Wednesday 10 December

16:00

### Poster Session (at PSFC)

Session |

**Location:** Cambridge, Massachusetts, USA, Hacker Reactor at MIT's iHQ. Address: 292 Main Street | MIT Bldg. E38 | Floor 7 | Cambridge, MA 02142

16:00–17:30 **An Open-Source Divertor Digital Twin Environment for Fusion Power Plants**

**Speaker**

Michael Battye

16:00–17:30 **Development of a data framework for conceptual design of fusion reactor**

**Speaker**

JAE MIN Kwon

16:00–17:30

**An Overview of Methods and Applications for Data-Driven Predictive Maintenance in Fusion Devices**

**Speaker**

Leonardo Caputo

16:00–17:30 **Integrating Edge Analytics and HPC for Autonomous HED Experimental Workflows**

**Speaker**

Abhik Sarkar

16:00–17:30 **Bayesian Experimental Design to Enable Digital Twins**

**Speaker**

Cyd Cowley

16:00–17:30 **Digital Engineering for Fusion: Uncertainty Quantification in Neutronics Modeling**

**Speaker**

Stefano Segantin

16:00–17:30

**Leveraging Bayesian optimization for automated plasma composition optimization of ARC with physics-based turbulent transport models**

**Speaker**

Audrey Saltzman

16:00–17:30

**Surrogate model generation using high-fidelity CGYRO predictions enabled by active learning techniques**

**Speaker**

Aaron Ho

17:30