

Session Program

24-28 Aug 2026



EUROPEAN COALITION FOR AI
IN FUNDAMENTAL PHYSICS
CONFERENCE
EuCAIFCon 2026

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Real-Time Data Processing

Kirchhoff Institute for Physics (KIP), Foyer
Im Neuenheimer Feld 227 69120 Heidelberg Germany

Wednesday 26 August

14:00

Real-Time Data Processing

Session | **Location:** 3.404 | **Convener:** Wouter Verkerke

14:00–14:08

Real-time data processing model at LHCb and ML/AI: evolution from an extension to a core functionality

Speaker

Miroslav Saur

14:10–14:18

Metric Learning for Graph Neural Network-Based Track Reconstruction at the ATLAS Event Filter

Speaker

Giulia Fazzino

14:20–14:28

CNN-Based Trigger for QGP-Sensitive Event Selection in High-Rate Heavy-Ion Experiments

Speaker

Olga Soloveva

14:40–14:48

Deep Learning for detector alignment at LHCb

Speaker

Manjunath Omana Kuttan

14:50–14:58

Symbolic Regression as a Model Compression Tool for Neural Networks used in Track Seeding

Speaker

Urs Moritz Fischer

15:00–15:08

Machine Learning Models for Anomaly Detection at HADES

Speaker

Óscar Marcos Pérez Cytron

15:30

Thursday 27 August

14:00

Real-Time Data Processing

Session | **Location:** 3.404 | **Convener:** Thorsten Buss

14:00–14:08

EPIGRAPHY: Advancing Edge AI for Particle Physics through Community Benchmarks and Data Challenges

Speaker

Sebastian Dittmeier

14:10–14:18

Economical Jet Taggers -- Equivariant, Slim and Quantized

Speaker

Antoine Petitjean

14:20–14:28

Enabling portable and optimized Machine Learning Inference through code generation

Speaker

Sanjiban Sengupta

14:30–14:38

From slow to real-time control in accelerator-based research infrastructures

Speaker

Erik Bründermann

14:50–14:58

Real-time Gravitational Wave Parameter Estimation

Speaker

James Alvey

15:00–15:08

Pre-localization of Massive Black Hole Binaries in the Millihertz Band

Speaker

Dr Xue-Ting Zhang

15:10–15:18

Is Data Compression an Anomaly Detector? Applications to High-Energy Physics Datasets

Speaker

Prof. Caterina Doglioni

15:20–15:28

Accelerating Cosmological Inference: A Re-usable Library of JAX-based Machine Learning Emulators for Next-Generation Surveys

Speaker

Dily Duan Yi Ong

15:33