Glühwein Workshop 2024 @ KIT

Report of Contributions

Contribution ID: **1** Type: **not specified**

Guided tours

Monday, December 16, 2024 4:20 PM (1h 40m)

Option 1) GridKa
Option 2) KATRIN
Option 3) Forschungsreaktor 2
Each option has a capacity of 20 people. Details on meeting points, etc. during the introduction.

Contribution ID: **2**   Type: **not specified**

End-to-End Multi-Track Reconstruction using Graph Neural Networks at Belle II

Tuesday, December 17, 2024 9:00 AM (40 minutes)

https://arxiv.org/abs/2411.13596

Presenter: REUTER, Lea (Karlsruhe Institute of Technology (KIT))

Session Classification: Presentations

Contribution ID: **3**   Type: **not specified**

Real-time clustering with GNNs - first operational experience

Tuesday, December 17, 2024 9:40 AM (40 minutes)

Presenters: HAIDE, Isabel (Karlsruher Institut für Technologie); NEU, Marc

Session Classification: Presentations

Contribution ID: 4   Type: **not specified**

Using machine learning to search for scalar lepton partners at the LHC

Monday, December 16, 2024 12:10 PM (40 minutes)

Presenter: STENGEL, Patrick (Ljubljana)

Session Classification: Presentations

Contribution ID: **5**   Type: **not specified**

AIDO: A Software Package for the Optimization of Continuous and Discrete Detectorparameters using Surrogate Models

Monday, December 16, 2024 1:50 PM (40 minutes)

Presenter: SCHMIDT, Kylian

Session Classification: Presentations

Contribution ID: 6　　　　　　　　　　　　　　　　　　　　Type: **not specified**

ML-enhanced optimal detector design with mutual information

Monday, December 16, 2024 2:30 PM (40 minutes)

Presenter: WOZNIAK, Kinga Anna (Geneva)

Session Classification: Presentations

Contribution ID: **7**
Type: **not specified**

Welcome

Monday, December 16, 2024 10:00 AM (20 minutes)

Presenter: KLUTE, Markus

Session Classification: Presentations

Contribution ID: **8**   Type: **not specified**

Universal New Physics Latent Space

Monday, December 16, 2024 10:20 AM (40 minutes)

Presenter: VON SCHWARTZ, Tore (Uni Hamburg)

Session Classification: Presentations

Contribution ID: **9** Type: **not specified**

Anomaly detection with CMS

Monday, December 16, 2024 11:00 AM (40 minutes)

Presenter: YEDE, Chitrakshee

Session Classification: Presentations

Contribution ID: **10**   Type: **not specified**

What theorists can teach experimentalists about calorimeter calibration

Tuesday, December 17, 2024 10:50 AM (40 minutes)

Presenter: VOGEL, Lorenz (Heidelberg)

Session Classification: Presentations

Contribution ID: **11**   Type: **not specified**

Generative Models for Detector Simulation

Tuesday, December 17, 2024 11:30 AM (40 minutes)

Presenter: KORCARI, William (Uni Hamburg)

Session Classification: Presentations

Contribution ID: **12**   Type: **not specified**

Calorimeter Simulation with Foundation Models

Tuesday, December 17, 2024 12:10 PM (40 minutes)

Presenter: ROSE, Henning (Uni Hamburg)

Session Classification: Presentations

Contribution ID: **13**   Type: **not specified**

The fundamental limit of jet tagging

Tuesday, December 17, 2024 2:20 PM (40 minutes)

2411.02628 [hep-ph]

Presenter: MÜCK, Alexander (Aachen)

Session Classification: Presentations

Contribution ID: **14**   Type: **not specified**

How to Unfold Top Decays

Tuesday, December 17, 2024 3:00 PM (40 minutes)

Presenter: PALACIOS-SCHWEIZER, Sofia (Heidelberg)

Session Classification: Presentations

Contribution ID: **15**   Type: **not specified**

Applying 1-Bit Networks to High Energy Physics

Tuesday, December 17, 2024 4:20 PM (40 minutes)

Presenter: WANG, Daohan (HEPHY)

Session Classification: Presentations

Contribution ID: 16   Type: **not specified**

Accurate and robust methods for direct background estimation in resonant anomaly detection

Tuesday, December 17, 2024 5:00 PM (40 minutes)

Presenter: HEIN, Marie (Heidelberg)

Session Classification: Presentations

Contribution ID: **17**   Type: **not specified**

Methods to Infer the Composition of Ultra-High Energy Cosmic Rays

Wednesday, December 18, 2024 10:50 AM (40 minutes)

Presenter: BORTOLATO, Blaž (Ljubljana)

Session Classification: Presentations

Contribution ID: 18   Type: **not specified**

The Landscape of Unfolding with Machine Learning

Presenter: HUETSCH, Nathan (Heidelberg)

Session Classification: Presentations

Contribution ID: **19**   Type: **not specified**

Lorentz-Equivariant Geometric Algebra Transformers

Wednesday, December 18, 2024 11:30 AM (40 minutes)

Presenter: SPINNER, Jonas

Session Classification: Presentations

Contribution ID: **20** Type: **not specified**

Farewell

Wednesday, December 18, 2024 12:10 PM (10 minutes)

Presenter: KLUTE, Markus

Session Classification: Presentations

Contribution ID: **21** Type: **not specified**

Systematic-aware training

Wednesday, December 18, 2024 9:40 AM (40 minutes)

Presenter: MONSCH, Artur (KIT)

Session Classification: Presentations

Contribution ID: **22**   Type: **not specified**

NN-Taylor Coefficient Analyse (TCA)

Wednesday, December 18, 2024 9:00 AM (40 minutes)

Presenter: SOWA, Lars (KIT)

Session Classification: Presentations

Contribution ID: **23**

Type: **not specified**

The Landscape of Unfolding with Machine Learning

Monday, December 16, 2024 3:10 PM (40 minutes)

Presenter: HUETSCH, Nathan (Heidelberg)

Session Classification: Presentations