



Contribution ID: 238

Type: **not specified**

Poster session B

Thursday, 2 May 2024 12:00 (3 hours)

IDs Title Presenters

- 4 Analyzing ML-enabled Full Population Model for Galaxy SEDs with Unsupervised Learning and Mutual Information Sinan Deger
- 7 Quark/gluon discrimination and top tagging with dual attention transformer Daohan Wang
- 21 Learning the ‘Match’ Manifold to Accelerate Template Bank Generation Susanna Green
- 25 Optimal, fast, and robust inference of reionization-era cosmology with the 21cmPIE-INN Benedikt Schosser
- 40 Rapidly searching and producing Bayesian posteriors for neutron stars in gravitational wave data. Joe Bayley
- 41 Convolutional neural network search for long-duration transient gravitational waves from glitching pulsars Rodrigo Tenorio
- 44 GNN for Λ Hyperon Reconstruction in the WASA-FRS Experiment Snehanik Pattnaik
- 54 OmniJet: The first cross-task foundation model for particle physics Joschka Birk
- 55 Turning optimal classifiers into anomaly detectors Adrian Rubio Jimenez
- 58 Gradient-Annihilated PINNs for Solving Riemann Problems: Application to Relativistic Hydrodynamics Antonio Ferrer Sánchez
- 60 Increasing the model agnosticity of weakly supervised anomaly detection Marie Hein
- 67 Multi-class classification of gamma-ray sources and the nature of excess of GeV gamma rays near the Galactic center Dmitry Malyshev
- 69 Estimation of Machine Learning model uncertainty in particle physics event classifiers Julia Vazquez Escobar
- 70 Robust Uncertainty Quantification in Parton Distribution Function Inference Mark Costantini
- 75 Symbolic regression for precision LHC physics Manuel Morales-Alvarado
- 78 Deep learning techniques in the study of the hypertriton puzzle Christophe Rappold
- 82 Next-Generation Source Analysis: AI Techniques for Data-Intensive Astronomical Observations Rodney Nicolaas Nicolaas
- 83 Flexible joint conditional normalizing flow distributions over manifolds: the jammy-flows toolkit Thorsten Glüsenkamp
- 85 Finetuning Foundation Models for Joint Analysis Optimization Lukas Heinrich
- 90 Calculating entanglement entropy with generative neural networks Dawid Zapolski
- 95 Energy-based graph autoencoders for semivisible jet tagging in the Lund representation Roberto Seidita
- 97 Fast and Precise Amplitude Surrogates with Bayesian and Symmetry Preserving Networks Víctor Bresó Pla
- 98 Galaxy redshift estimations with transfer and multi-task learning Martin Boerstad Eriksen
- 99 Quark/gluon tagging in CMS Open Data with CWoLa and TopicFlow Ayodele Ore
- 105 Generating Lagrangians for particle theories Eliel Camargo-Molina
- 106 Evaluating Generative Models with non-parametric two-sample tests Samuele Grossi
- 107 The flash-simulation of the LHCb experiment using the Lamarr framework Matteo Barbetti
- 110 Utilizing Artificial Intelligence Technologies for the Enhancement of X-ray Spectroscopy with Metallic-Magnetic Calorimeters Marc Oliver Herdrich
- 112 Applying hierarchical autoregressive neural networks for three-dimensional Ising model Mateusz Winiarski
- 117 End-to-End Object Reconstruction in a Sampling-Calorimeter using YOLO Pruthvi Suryadevara
- 118 Validating Explainable AI Techniques through High Energy Physics Data Mariagrazia Monteleone
- 126 Transformer-inspired models for particle track reconstruction Yue Zhao
- 127 Sensitivity of strong lenses to substructure with machine learning Conor O’Riordan
- 134 A fast convolutional neural network for online particle track recognition Viola Cavallini

- 139 A deep learning method for the gamma-ray identification with the DAMPE space mission Jennifer Maria Frieden
- 143 Flavour Tagging with Graph Neural Networks with the ATLAS experiment Walter Leinonen
- 145 A deep learning method for the trajectory reconstruction of gamma rays with the DAMPE space mission Parzival Nussbaum
- 146 Unsupervised tagging of semivisible jets with energy-based autoencoders in CMS Florian Eble
- 152 Precision-Machine Learning for the Matrix Element Method Theo Heimel
- 153 Unsupervised Classification of Radio Sources Through Self-Supervised Representation Learning Nicolas Baron Perez
- 163 Model selection with normalizing flows Rahul Srinivasan
- 164 Towards the first time ever measurement of the $gg \rightarrow ZH$ process at the LHC using Transformer networks Geoffrey Gilles
- 165 Next generation cosmological analysis with a re-usable library of machine learning emulators across a variety of cosmological models Dily Duan Yi Ong
- 172 LHC Event Generation with JetGPT Jonas Spinner
- 179 Machine-learning analysis of cosmic-ray nuclei data from the AMS-02 experiment Shahid Khan
- 182 b-hive: a modular training framework for state-of-the-art object-tagging within the python ecosystem at the CMS experiment Niclas Eich
- 183 FlashSim: an end-to-end fast simulation prototype using Normalizing Flow Francesco Vaselli
- 193 Improving Two-Neutron Detection Efficiency on the NEBULA Detector using XGBoost Algorithm Yutian Li
- 195 Reconstruction of Low Mass Vector Mesons via Dimuon decay channel using Machine Learning Technique for the CBM Experiment at FAIR Abhishek Kumar Sharma
- 201 Reconstructing the Neutron Star Equation of State with Bayesian deep learning Giulia Ventagli
- 202 A Neural-Network-defined Gaussian Mixture Model for particle identification in LHCb Edoardo Franzoso
- 204 Deep learning predicted elliptic flow of identified particles in heavy-ion collisions at the RHIC and LHC energies Gergely Gábor Barnaföldi
- 205 Anomaly detection search for BSM physics in ATLAS experiment at LHC Francesco Cirotto
- 208 Simulation Based Inference from the CD-EoR 21-cm signal Anchal Saxena
- 214 Deep support vector data description models on an analog in-memory computing platform for real-time unsupervised anomaly detection. Dominique Kusters
- 215 Application of science-informed AI in experimental particle physics and neuroscience Peter Levai
- 217 Tuning neural posterior estimation for gravitational wave inference Alex Kolmus
- 220 Using ML based Unfolding to reduce error on lattice QCD observables Simran Singh
- 221 Addressing Real-World Noise Challenges in Gravitational Wave Parameter Estimation with Truncated Marginal Neural Ratio Estimation Alexandra Wernersson
- 222 Fully Bayesian Forecasts with Neural Bayes Ratio Estimation Thomas Gessey-Jones

Session Classification: Poster session