Hammers & Nails 2023 - Swiss Edition

Monday, 30 October 2023

Young Scientist Forum (16:00 - 18:00)

time	[id] title	presenter
16:00	[64] End-To-End Latent Variational Diffusion Models for Unfolding LHC Events.	SHMAKOV, Alexander
16:10	[63] PC-Droid: Jet generation with diffusion	Mr LEIGH, Matthew
16:20	[59] Drapes: Diffusion for weak supervision	SENGUPTA, Debajyoti
16:30	[55] Self-supervised learning of jets using a realistic detector simulation	KOBYLIANSKII, Dmitrii DREYER, Etienne SOYBELMAN, Nathalie KAKATI, Nilotpal RIECK, Patrick
16:40	[53] De-noising Graph Super-Resolution with Diffusion Models and Transformers	KAKATI, Nilotpal
16:50	[50] Field-Level Inference with Microcanonical Langevin Monte Carlo	BAYER, Adrian
17:00	[47] Novel Approaches for Fast Simulation in HEP using Diffusion and Graph-to-Graph Translation	KOBYLIANSKII, Dmitrii
17:10	[46] Precision-Machine Learning for the Matrix Element Method	HEIMEL, Theo
17:20	[38] Galaxies and Graphs	JESPERSEN, Christian Kragh
17:30	[29] Simulation-based Self-supervised Learning (S3L)	MAIER, Benedikt KRUPA, Jeffrey
17:40	[35] Decorrelation using Optimal Transport	ALGREN, Malte
17:50	[32] The Interplay of Machine Learning–based Resonant Anomaly Detection Methods	MASTANDREA, Radha

Young Scientist Forum: Poster session (incl. pizza, beer & insert cards) (18:30 - 20:00)

time	[id] title	presenter
18:35	[30] Finding strong lens by combining DenseLens and segmentation	NAGAM, Bharath Chowdhary
18:35	[33] Pay Attention to Mean Fields for Point Cloud Generation	KACH, Benno
18:35	[36] Cosmic Perspectives: A Comparative Study of Image-to-Image Translation Methods with an Emphasis on Geometrical Alignment	KINAKH, Vitaliy
18:35	[37] Unlocking Autonomous Telescopes through Reinforcement Learning: An Offline Framework and Insights from a Case Study	TERRANOVA, Franco
18:35	[40] Using machine learning to detect antihydrogen in free fall	GOLINO, Lukas
18:35	[41] Cluster Scanning	Mr OLEKSIYUK, Ivan
18:35	[42] Machine Learning based Compression of Scientific Data - the HEP Perspective	JAWAHAR, Pratik
18:35	[43] The Calorimeter Pyramid: Rethinking the design of generative calorimeter shower models	SCHNAKE, Simon

18:35	[44] DeepTreeGAN: Fast Generation of High Dimensional Point Clouds	Mr SCHAM, Moritz
18:35	[45] Radio-astronomical Image Reconstruction with Conditional Denoising Diffusion Model	DROZDOVA, Mariia
18:35	[49] Learning the Reionization History from High-z Quasar Damping Wings with Simulation-based Inference	KIST, Timo
18:35	[51] Diffusion-Based Separation of CMB and Dust Emission: Enabling Cosmological Inference	Mr HEURTEL-DEPEIGES, David Dr OHANA, Ruben RÉGALDO-SAINT BLANCARD, Bruno
18:35	[52] Unsupervised and Weakly Supervised Machine Learning Enhanced Anomaly Detection in High Energy Physics	WOZNIAK, Kinga Anna
18:35	[54] Sampling high-dimensional inverse problem posteriors with neural score estimation	Mr REMY, Benjamin
18:35	[56] Track finding and fitting with differentiable programming	RAMBELLI, Lucrezia
18:35	[57] Are Differentiable Simulators Beneficial for Cosmological Simulation-Based Inference?	ZEGHAL, Justine
18:35	[60] Domain adaption between SKA radio mocks and cosmological simulations	Dr DENZEL, Philipp
18:35	[61] TURBO: The Swiss Knife of Auto-Encoders	QUÉTANT, Guillaume

Wednesday, 1 November 2023

Young Scientist Forum (09:00 - 10:00)

time	[id] title	presenter
09:00	[31] How will AI enable autonomous particle accelerators?	KAIN, Verena
09:15	[67] Turbo-Sim Framework	VOLOSHINOVSKIY, Slava
09:30	[48] Accelerating graph-based tracking with symbolic regression	SOYBELMAN, Nathalie
09:40	[62] Masked particle modelling	KLEIN, Samuel Byrne
09:50	[66] Using transformers to calculate scattering amplitudes	MERZ, Garret