The 2nd "AI+HEP in East Asia" workshop

Report of Contributions

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

Welcome

Monday, 19 January 2026 09:50 (10 minutes)

Presenter: Prof. NOJIRI, Mihoko (KEK)

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

AI and Machine Learning Application in Experimental High Energy Physics

Monday, 19 January 2026 10:00 (45 minutes)

Presenter: LI, Liang (Shanghai Jiao Tong University)

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

AI on the Path to Discovery

Monday, 19 January 2026 10:45 (45 minutes)

Presenter: KASIECZKA, Gregor (U. Hamburg)

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

ACAT flag handover ceremony

Monday, 19 January 2026 11:30 (5 minutes)

Presenters: KASIECZKA, Gregor (U. Hamburg); Prof. MEYER-CONDE, Marco (Tokyo City University)

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

tentative: Machine Learning for Lattice QCD

Monday, 19 January 2026 13:00 (45 minutes)

Presenter: Prof. TOMIYA, Akio (TWU/Kyoto Univ.)

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

Artificial intelligence as a subject of natural science? –Exploring and exploiting AI in vision tasks–

Monday, 19 January 2026 13:45 (45 minutes)

Presenter: Prof. NAKASHIMA, Yuta (U. Osaka)

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

Foundational Models for HEP and beyond

Monday, 19 January 2026 15:00 (45 minutes)

Presenter: Prof. MIKUNI, Vinicius (KMI, Nagoya U.)

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

Data-driven hadronization models

Monday, 19 January 2026 15:45 (30 minutes)

Presenter:　Dr ORE, Ayodele (Heidelberg University, ITP)

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

(*)Foundation Model for Decay Event Classification at BESIII

Monday, 19 January 2026 16:30 (15 minutes)

Presenter: Dr CHEN, Jingde (IHEP)

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

Foundation model for Unified Understanding and Generation of Collider Data

Monday, 19 January 2026 16:45 (15 minutes)

Presenter: Dr ZHANG, Yulei (U. Washington)

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

(*)Multi-agents system for analysis automation

Monday, 19 January 2026 17:00 (15 minutes)

Presenter: Dr LI, Ke (IHEP)

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

DLScanner: A parameter space sampling assisted by deep learning methods

Monday, 19 January 2026 17:15 (15 minutes)

Presenter: HAMMAD, Ahmed

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

Learning to find weird particles

Tuesday, 20 January 2026 13:00 (45 minutes)

Presenter: Prof. WHITESON, Daniel Whiteson (UC Irvine)

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

Real-Time AI at the Edge: Decoding Particles, Brains, and the Cosmos

Tuesday, 20 January 2026 13:45 (45 minutes)

Presenter: Prof. HSU, Shih-Chieh (U. Washington)

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

Domain adaptation in colliders: reconcile simulation and data

Tuesday, 20 January 2026 15:00 (15 minutes)

Presenter: WEI, Shang-Fu (U. Tokyo)

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

Higgs Production Classifier using Weak Supervision

Tuesday, 20 January 2026 15:15 (15 minutes)

Presenter: HSIEH, Feng-Yang (National Taiwan University)

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

Development of particle flow algorithm with GNN for the future Higgs factories

Tuesday, 20 January 2026 15:30 (15 minutes)

Presenter: MIRATA, Tatsuki (U.Tokyo)

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

Unbinned Unfolding in the Presence of Nuisance Parameters

Tuesday, 20 January 2026 15:45 (15 minutes)

Presenter: ZHU, Huanbiao (Richard) (Carnegie Mellon University)

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

Research on Improving Jet Flavor Tagging Precision in the ILC Using the Particle Transformer

Tuesday, 20 January 2026 16:10 (10 minutes)

Presenter: KAWAHARA, Takahiro (U. Tokyo)

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

Quantum Integration Networks for Efficient Monte Carlo in High-Energy Physics

Tuesday, 20 January 2026 16:20 (10 minutes)

Presenter: YI, Heechan (Yonsei University)

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

Investigating the Invisible Higgs Coupling at a Muon Collider

Tuesday, 20 January 2026 16:30 (10 minutes)

Presenter:　JANG, Yongik (Kyungpook National University)

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

Deep Learning Application in the Visible Decay Search for Dark Photons with DarkSHINE Experiment

Tuesday, 20 January 2026 16:40 (15 minutes)

Presenter: LU, Zejia (Shanghai Jiao Tong University)

Contribution ID: **23**   Type: **not specified**

Physics of Machine Learning and Diffusion Models

Wednesday, 21 January 2026 10:00 (45 minutes)

Presenter: Prof. AARTS, Gert (Swansea University)

Contribution ID: **24**   Type: **not specified**

Status on Generative Unfolding

Wednesday, 21 January 2026 10:45 (45 minutes)

Presenter: Dr SCHWEITZER, Sofia Palacios (Rutgers U.)

Contribution ID: **25**   Type: **not specified**

Solving complex inverse problems with differentiations

Wednesday, 21 January 2026 13:00 (45 minutes)

Presenter: Prof. SHI, Shuzhe (Tsinghua University)

Contribution ID: **26**   Type: **not specified**

Man, Machine, and Mathematics

Wednesday, 21 January 2026 13:45 (45 minutes)

Presenter: Dr DOGRA, Akshunna S. (MIT / IAIFI)

Contribution ID: **27**   Type: **not specified**

Neural network wavefunctions for SU(2) lattice gauge theory

Wednesday, 21 January 2026 15:00 (15 minutes)

Presenter: SPRIGGS, Thomas (QuTech and Kavli Institute of Nanoscience, Delft)

Contribution ID: **28**   Type: **not specified**

Machine Learning-Based Estimation of Cumulants of Chiral Condensate via Multi-Ensemble Reweighting with Deborah.jl

Wednesday, 21 January 2026 15:15 (15 minutes)

Presenter: Dr CHOI, Benjamin Jaedon (Center for Computational Sciences, University of Tsukuba)

Contribution ID: **29**   Type: **not specified**

4D QCD EoS from a Quasi-Parton Model via Physics-Informed Neural Network

Wednesday, 21 January 2026 15:30 (15 minutes)

Presenter: Dr LI, Fu-Peng (Fudan U.)

Contribution ID: **30**   Type: **not specified**

Exploration of the string theory landscape: 20 million vacua and their properties

Wednesday, 21 January 2026 15:45 (15 minutes)

Presenter: Prof. HAMADA, Yuta (KEK)

Contribution ID: **31**   Type: **not specified**

Exact CHY Integrand Construction Using Combinatorial Neural Networks and Discrete Optimization

Wednesday, 21 January 2026 16:10 (15 minutes)

Presenter: LI, Simeng (School of Physics, Ningxia University)

Contribution ID: **32**   Type: **not specified**

Solving Olympic-level physical problems with LOCA

Wednesday, 21 January 2026 16:25 (15 minutes)

Presenter: LI, Xiang (Peking University)

Contribution ID: **33**   Type: **not specified**

The Future of Computing and How Physicists Can Survive It

Wednesday, 21 January 2026 16:40 (15 minutes)

Presenter: ARUNACHALAM, Shivasankar K. (Hokkaido University)

Contribution ID: **34**   Type: **not specified**

(*)Deep Learning for QCD EoS

Thursday, 22 January 2026 10:00 (45 minutes)

Presenter: Prof. PANG, LongGang (Central China Normal University)

Contribution ID: **35**   Type: **not specified**

(*)AI for Holographic QCD

Thursday, 22 January 2026 10:45 (45 minutes)

Presenter: Prof. HUANG, Mei (University of Chinese Academy of Sciences (UCAS))

Contribution ID: **36**   Type: **not specified**

AI in cosmology

Thursday, 22 January 2026 13:00 (45 minutes)

Presenter: Prof. THIELE, Leander (Kavli IPMU)

Contribution ID: 37   Type: **not specified**

Glitch noise classification in KAGRA O3GK observing data using unsupervised machine learning

Thursday, 22 January 2026 13:45 (45 minutes)

Presenter: Prof. OSHINO, Shoichi (ICRR, U. Tokyo)

Contribution ID: **38**   Type: **not specified**

Bridging Gravitational Wave and High-Energy Physics Software

Thursday, 22 January 2026 15:00 (30 minutes)

Presenter: Prof. MEYER-CONDE, Marco Meyer-Conde (Tokyo City University)

Contribution ID: **39**   Type: **not specified**

Accelerating Primordial Black Hole Phenomenology: An Operator Learning Approach

Thursday, 22 January 2026 15:30 (15 minutes)

Primary author: Dr KIM, Tae-Geun (Fudan U. / RIKEN)

Presenter: Dr KIM, Tae-Geun (Fudan U. / RIKEN)

Contribution ID: **40**   Type: **not specified**

Machine Learning-based glitch segmentation with Wavelet Transform in LVK detectors data

Thursday, 22 January 2026 15:45 (15 minutes)

Presenter: Dr ALLÉNÉ, Christopher Alléné (Tokyo City U.)

Contribution ID: **41**   Type: **not specified**

(*)Unbinned, High-Dimensional Precision Measurements through Modern Machine

Thursday, 22 January 2026 16:00 (15 minutes)

Presenter: Dr PAN, Jingjing (KIT)

Contribution ID: **42**   Type: **not specified**

Classification of simulated gravitational-wave signals from core-collapse supernovae using machine learning

Friday, 23 January 2026 10:00 (45 minutes)

Presenter: Prof. SAKAI, Yusuke (Tokyo City University)

Contribution ID: **43**   Type: **not specified**

(*)Holistic Analysis and Color Singlet identification for the Higgs factory

Friday, 23 January 2026 10:45 (45 minutes)

Presenter: Prof. RUAN, Manqi (IHEP)

Contribution ID: 44 Type: **not specified**

Learning from all Particles

Friday, 23 January 2026 13:00 (45 minutes)

Presenter: Prof. HASHIMOTO, Koji (Kyoto U.)

Contribution ID: **45**   Type: **not specified**

Understanding Galactic Dark Matter with Generative Models

Friday, 23 January 2026 13:45 (30 minutes)

Presenter: Dr LIM, Sung Hak (CTPU-PTC, IBS)

Contribution ID: 46   Type: **not specified**

Overview of the 2025 AI+HEP Community Survey in China

Friday, 23 January 2026 14:15 (15 minutes)

Presenter: Prof. CHAI, Tianji (Tongji U.)

Contribution ID: 47   Type: **not specified**

Closing remarks

Friday, 23 January 2026 14:30 (15 minutes)

Presenter: Dr WANG, Lingxiao (RIKEN / U. Tokyo)