Session Program

May 25 – 29, 2026

28th Conference on Computing in High Energy and Nuclear Physics (CHEP 2026)

Poster

Chulalongkorn University

Mon, May 25

3:15 PM

Poster

Poster Session | **Location:** Sala Phra Kieo, Second Floor

Enhancing ATLAS ITk Outer Barrel Loading Workflows through Guided Procedures and Automated Database Interactions with CLApp

Speaker
Dr Maximilian Horzela

Location
Sala Phra Kieo, Second Floor

Sustainable Simulation: Reducing FullSim Dependence with Cross-Experiment Pretrained Neural Networks

Speaker
Matthias Schott

Location
Sala Phra Kieo, Second Floor

CMS Storage Performance with RNTuple

Speaker
Eric Vaandering

Location
Sala Phra Kieo, Second Floor

Development of the JUNO-TAO event display based on PHOENIX

Speaker
Xuesen Wang

Location
Sala Phra Kieo, Second Floor

From In-House Tools to HashiCorp Vault: CERN's Transition to Modern Scalable Secrets Management

Speaker
Ben Jones

Location
Sala Phra Kieo, Second Floor

Data-Driven Validation of HS23 with CMS Grid Job Monitoring Data

Speaker
Robin Hofsaess

Location
Sala Phra Kieo, Second Floor

A Blueprint for Emerging Centers: The NNU HEP Farm's Evolution from Local Cluster to Grid Integration

Speaker
Kai Yi

Location
Sala Phra Kieo, Second Floor

Autonomous Quantum Machine Learning via Riemannian Gradient Optimization

Speaker
Kasidit Srimahajariyapong

Location
Sala Phra Kieo, Second Floor

AI-Driven Operations and Digital Twin for the LHCb Data Centre

Speaker
Pierfrancesco Cifra

Location
Sala Phra Kieo, Second Floor

LGT4HEP: Computing Traineeship in Lattice Gauge Theory for High-Energy Physics

Speaker
Huey-Wen Lin

Location
Sala Phra Kieo, Second Floor

Leveraging Visualization for Enhanced Physics Analysis in BESIII

Speaker
Zhijun Li

Location
Sala Phra Kieo, Second Floor

FairRoot an experiment independent framework for simulation, analysis and reconstruction

Speaker
Florian Uhlig

Location
Sala Phra Kieo, Second Floor

Transformer-based deep learning approach to measurement of the rare top process $t \to sW$

Speaker
Woojin Jang

Location
Sala Phra Kieo, Second Floor

EveNet: A Foundation Model for Particle Collision Data Analysis

Speaker
Ting-Hsiang Hsu

Location
Sala Phra Kieo, Second Floor

Differentiable Everything: A JAX Ecosystem for Likelihood-Based Inference in HEP

Speaker
Mohamed Aly

Location
Sala Phra Kieo, Second Floor

Uproot-custom: Extend and customize TTree reading in Uproot

Speaker
Mingrun Li

Location
Sala Phra Kieo, Second Floor

The tracking performance on LHCb UP detector in Upgrade II

Speaker
Yisheng Fu

Location
Board: 219-Mo

TPC MPD GAN Fast Simulation

Speaker
Dr Alexey Boldyrev

Location
Sala Phra Kieo, Second Floor

Enhancement and Validation of Hadronic De-excitation Models in Geant4

Speaker
Nikita Chalyi

Location
Board: 215-Mo

Remote ROOT Data Access: Separating Client and Server Effects in Nginx and XRootD

Speaker
Aashay Arora

Location
Sala Phra Kieo, Second Floor

DUNE Rucio Server Scalability Studies

Speaker
Jacob Calcutt

Location
Sala Phra Kieo, Second Floor

Metadex: An AI-Native Conditions Metadata Exchange for DUNE

Speaker
Dr Gavin Davies

Location
Sala Phra Kieo, Second Floor

Update on the Canadian Belle II Tier1 Raw Data Centre

Speaker
Dr Marcus Ebert

Location
Sala Phra Kieo, Second Floor

Enhancing the ME0 Level-1 Trigger in the CMS Experiment Using Machine Learning

Speaker
Woohyeon Heo

Location
Board: 137-Mo

JUNO Raw Data Preprocessing

Speakers
Tao Lin, Dr Tao Lin

Location
Sala Phra Kieo, Second Floor

GUNTAM: A Transformer for seed reconstruction

Speaker
Minh-Tuan Pham

Location
Sala Phra Kieo, Second Floor

Quantum machine learning and the journey to its scalability

Speaker
Supanut Thanasilp

Location
Sala Phra Kieo, Second Floor

Innovations for hardware-level muon trigger for long-lived particles in CMS

Speaker
Pelayo Leguina

Location
Board: 133-Mo

A Low-Latency Muon-Shower trigger for Long-Lived Particle Signatures

Speaker
Javier Prado Pico

Location
Board: 129-Mo

A Graph-Pipeline Framework for ALICE MC Workflows in Run 3 and Beyond

Speaker
Sandro Christian Wenzel

Location
Sala Phra Kieo, Second Floor

CernVM-FS Unchained: An Update to Container Unpacking and Distribution with CVMFS

Speaker
Valentin Volkl

Location
Board: 207-Mo

Driving the CMS Submission Infrastructure Towards the HL-LHC Scales

Speaker
Antonio Perez-Calero Yzquierdo

Location
Board: 203-Mo

Next-Generation Triggers for CMS at the HL-LHC: Toward Offline-Quality Real-Time Reconstruction

Speaker
Jessica Prendi

Location
Sala Phra Kieo, Second Floor

Performance Portable Lattice Gauge Theory Simulation with Kokkos

Speaker
LI Haibo lihaibo

Location
Sala Phra Kieo, Second Floor

Translating LHCb’s documentation – first experiences and ensuring maintenance

Speakers
Andy MORRIS, Yisheng Fu

Location
Sala Phra Kieo, Second Floor

4:15 PM

Tue, May 26

3:15 PM

Poster

Poster Session | **Location:** Sala Phra Kieo, Second Floor

IPVLAN Container Manager: A High-Performance, Fault-Tolerant Orchestration Framework for Distributed Scientific Computing

Speaker
Dr Geonmo Ryu

Location
Sala Phra Kieo, Second Floor

HEPS Large-Scale Data Challenges and Corresponding Solutions

Speaker
Siqi Hou

Location
Sala Phra Kieo, Second Floor

AI_INFN Platform - a distributed Virtual Research Environment

Speaker
Rosa Petrini

Location
Sala Phra Kieo, Second Floor

Integrating the ATLAS Glance systems to CERN’s Group Management API

Speakers
Rafaella Lenzi Romano, Rafaella Lenzi Romano

Location
Sala Phra Kieo, Second Floor

A Geometric Graph Node Converter for PMT Non-Linearity Correction in the GRAPES-3 Experiment

Speaker
Sambit Sarkar

Location
Sala Phra Kieo, Second Floor

CRISP: A Collaborative Research Information Sharing Platform

Speaker
Eric Lancon

Location
Sala Phra Kieo, Second Floor

A new era for the management of 10,000 Windows devices at CERN

Speaker
Ben Jones

Location
Sala Phra Kieo, Second Floor

Sustainable Open Science with Advanced Metadata: The Einstein Telescope Analysis Portal (ETAP)

Speaker
Paul James Laycock

Location
Sala Phra Kieo, Second Floor

WordPress as a service for a diverse CERN community

Speaker
Berk Balci

Location
Sala Phra Kieo, Second Floor

Research on Key Technologies for Automated Penetration Testing Oriented to High-Energy Physics Institutes

Speaker
Shiyuan Fu

Location
Sala Phra Kieo, Second Floor

Efficient Statistical Modeling for Particle Physics Using Computational Graphs in Python

Speaker
Dr Giordon Holtsberg Stark

Location
Sala Phra Kieo, Second Floor

Modeling Systematic Uncertainty in Latent Representations for Anomaly Detection at Scale

Speaker
Gaia Grosso

Location
Sala Phra Kieo, Second Floor

A Snakemake-Based Workflow for Reproducible Particle Physics Analyses

Speakers
Oxana Smirnova, Oxana Smirnova

Location
Sala Phra Kieo, Second Floor

In-memory compression of Awkward Arrays with Coffea

Speaker
Manfred Peter Fackeldey

Location
Sala Phra Kieo, Second Floor

New Geant4 internal data base for neutron cross sections.

Speaker
Andrei Berngardt

Location
Board: 216-Tu

Accelerating Diffusion Models for High-Fidelity Calorimeter Simulation

Speaker
Anwar Ibrahim

Location
Board: 220-Tu

Fast simulation for scattering muography applications using generative adversarial neural networks

Speaker
Javier Prado Pico

Location
Sala Phra Kieo, Second Floor

Adding a New Facility to IceCube's Long Term Archive

Speaker
David Schultz

Location
Sala Phra Kieo, Second Floor

Unifying Data and Metadata Access with PostgreSQL Foreign Data Wrappers

Speaker
Mwai Karimi

Location
Sala Phra Kieo, Second Floor

Benchmarking a PureStorage S500 Appliance for Physics Workflows

Speaker
Gianmaria Del Monte

Location
Sala Phra Kieo, Second Floor

An online data filtering and monitoring kit with ERSAP and streaming CODA

Speaker
Torri Jeske

Location
Sala Phra Kieo, Second Floor

Automated Jet Energy Correction for Prompt Data in the CMS experiment

Speakers
Patin Inkaew, Punnawich Chokeprasert, Theodoros Chatzistavrou

Location
Board: 138-Tu

Porting the CMS Tracker Raw Data Unpacker to GPUs

Speaker
Aashay Arora

Location
Board: 134-Tu

Quantum Computing Approaches to Tracking Parameter Optimization in High Energy Physics

Speakers
Mr Prajjwal Saxena, Prajjwal Saxena

Location
Sala Phra Kieo, Second Floor

Stagnation and false convergence in imaginary-time evolution

Speaker
Mr Suwannachad Suwannajitt

Location
Sala Phra Kieo, Second Floor

Quantum Graph Network for Boosted Jet Identification

Speaker
Parichehr Kangazian Kangazi

Location
Sala Phra Kieo, Second Floor

Neural network decorrelation in the LHCb topological b trigger

Speaker
James Connaughton

Location
Board: 130-Tu

An Adaptive Serialization and Compression Optimization Framework Based on Data Feature Perception

Speaker
Ms 世园 符

Location
Sala Phra Kieo, Second Floor

Federation of compute and storage resources for SPD offline computing

Speaker
Mr Andrey Kirianov

Location
Board: 208-Tu

Operational Evolution of FTS3: A DevOps Driven Approach to elastic operations.

Location
Board: 212-Tu

The SPD Software&Computing project.

Speaker
Dr Danila Oleynik

Location
Board: 204-Tu

Real-Time PF Clustering and Deep Learning for Soft-Tau Reconstruction in the CMS Phase-2 L1 Scouting Stream

Speaker
Valentina Camagni

Location
Sala Phra Kieo, Second Floor

Coffea schemas modifications

Speakers
Maksym Naumchyk, Maksym Naumchyk

Location
Sala Phra Kieo, Second Floor

AI Inference and Document Intelligence Service for GSI/FAIR

Speaker
Alexey Rybalchenko

Location
Sala Phra Kieo, Second Floor

Operational Experience of a Refurbished, Energy-Efficient Data Centre at Queen Mary University of London

Speaker
Caterina Doglioni

Location
Sala Phra Kieo, Second Floor

4:15 PM

Wed, May 27

3:15 PM

Poster

Poster Session | **Location:** Sala Phra Kieo, Second Floor

JobLens: A Lightweight Job Observability Collector for High-Throughput HEP Computing

Speaker
Mr Zhenyuan Wang

Location
Board: 201-We

Extending the reconstruction of displaced tracks at CMS during the HL-LHC with Line Segment Tracking

Speaker
Manos Vourliotis

Location
Sala Phra Kieo, Second Floor

CERN STEAM Academy: Growing the future Trigger, DAQ, Software & ML experts

Speaker
Anna Kravchenko

Location
Sala Phra Kieo, Second Floor

A Path Toward Scalable FPGA Offloading in Federated Research Infrastructures

Speakers
Daniele Spiga, Diego Ciangottini, Francesco Brivio, Giulio Bianchini, Massimo Sgaravatto, Mirko Mariotti, Paolo Dini, Simone Gennai

Location
Sala Phra Kieo, Second Floor

The INFN Open Access Repository: a FAIR challenge

Speaker
Stefano Dal Pra

Location
Sala Phra Kieo, Second Floor

Diffusion Models for ECAL Simulation in the LHCb experiment

Speaker
Anwar Ibrahim

Location
Board: 217-We

Overview of the Adapted German ATLAS and CMS Grid Computing Structure

Speaker
Shawn Gregory Zaleski

Location
Sala Phra Kieo, Second Floor

Introducing ARES: the LHCb Analysis platform for Radiation Environment Simulations

Speaker
Ryunosuke O'Neil

Location
Sala Phra Kieo, Second Floor

Enhancing Secure Remote Access at CERN: Implementing Two-Factor Authentication for Windows Terminal Infrastructure

Speaker
Ben Jones

Location
Sala Phra Kieo, Second Floor

An IaC-Framework for the future of CERN’s Infrastructure and Configuration Management

Location
Sala Phra Kieo, Second Floor

Expanding CloudVeneto: seamless integration of High Performance Computing resources for enhanced scientific collaboration

Speaker
Giovanni Zago

Location
Sala Phra Kieo, Second Floor

Topology-Informed Jet Tagging using Persistent Homology

Speaker
saurav mittal

Location
Sala Phra Kieo, Second Floor

Semi-Supervised and Manifold Learning on Multi-Modal Event Representations in the LZ Dark Matter Experiment

Speaker
John Winnicki

Location
Sala Phra Kieo, Second Floor

SysVar: Consistent and scalable treatment of systematic uncertainties in template-based analyses

Speaker
Ilias Tsaklidis

Location
Sala Phra Kieo, Second Floor

An Automated Data Processing Workflow Platform for Space Astronomy Satellites

Speaker
Shuang Wang

Location
Sala Phra Kieo, Second Floor

Harmonizing Relativistic Nuclear Collision Models via Multi-Discriminator GANs

Speaker
Aleksandr Svetlichnyi

Location
Sala Phra Kieo, Second Floor

GPU-Accelerated Simulation of 3D Diamond Sensors Using the TeRABIT Infrastructure

Speaker
Rosa Petrini

Location
Board: 221-We

Scalable Tape Data Management at INFN-CNAF: Extending GEMSS for Multi-Library Support and High-Performance Buffering

Speakers
Mr Andrea Chierici, Andrea Chierici

Location
Sala Phra Kieo, Second Floor

Towards the Italian national scientific datalake: case studies and insights

Speaker
Diego Ciangottini

Location
Sala Phra Kieo, Second Floor

TileCalibWeb Robot evolution towards HL-LHC: from COOL to CREST

Speaker
Yuri Smirnov

Location
Sala Phra Kieo, Second Floor

Optimizing the LHCb HLT2 selections framework

Speaker
Daniel Magdalinski

Location
Sala Phra Kieo, Second Floor

Real-Time Trigger Architectures for the CTAO LST Advanced Camera: From Logic to CNNs

Speaker
Daniel Nieto

Location
Board: 135-We

GlueX-Demon: a compact Python and JSROOT package for interactive data quality monitoring

Speaker
Dr Naomi Jarvis

Location
Sala Phra Kieo, Second Floor

Track-based Alignment of the BESIII CGEM Inner Tracker Using Cosmic-ray Data

Speakers
Mr Jiajv Wang, Prof. Linghui Wu

Location
Sala Phra Kieo, Second Floor

Machine Learning Approaches for Mass Composition Estimation in Ultra-High-Energy Cosmic Rays at the Pierre Auger Observatory

Speaker
Daniele Martello

Location
Sala Phra Kieo, Second Floor

Data quality monitoring system in the JUNO experiment

Speaker
Jize Yang

Location
Board: 131-We

CMS Site Monitoring and Run 3 Hammercloud Setup

Speaker
Chan-anun Rungphitakchai

Location
Board: 209-We

Integrating User Data Tokens in IceCube's Production Workflow Manager

Speaker
David Schultz

Location
Board: 213-We

Trigger-Level Analysis for Multi-Billion-Event Datasets

Speaker
Tobias Fitschen

Location
Sala Phra Kieo, Second Floor

Enhancing the Performance of the SCAB SuperSearch in the ATLAS Speakers System

Speaker
Leonardo Mira Marins

Location
Sala Phra Kieo, Second Floor

A novel library for Monte-Carlo simulation of relativistic nucleus-nucleus collisions systematization

Speakers
Savva Savenkov, Savva Savenkov

4:15 PM

Location
Sala Phra Kieo, Second Floor

Thu, May 28

3:15 PM

Poster

Poster Session | **Location:** Sala Phra Kieo, Second Floor

Using HyperQueue to increase utilization of EuroHPC resources by ATLAS Experiment

Speaker
Michal Svatos

Location
Sala Phra Kieo, Second Floor

Training and Deployment of Transformers in ATLAS

Speaker
Alessandro Zaio

Location
Sala Phra Kieo, Second Floor

SparKer: sparsity, locality and competition for statistical anomaly detection at scale

Speaker
Gaia Grosso

Location
Sala Phra Kieo, Second Floor

Simulation Studies of a Brute-Force χ^2 Alignment Framework for the CBM Silicon Tracking System

Speaker
Nora Bluhme

Location
Sala Phra Kieo, Second Floor

Scalar-Tensor Extension of Non-Metricity Gravity

Speaker
AVIK DE

Location
Sala Phra Kieo, Second Floor

Reproducible Dask workflows in the REANA reusable analyses platform

Speaker
Tibor Simko

Location
Sala Phra Kieo, Second Floor

Replacing the Legacy Tier-0 Accounting System with Standard Technologies for WLCG Accounting

Speaker
Ben Jones

Location
Board: 206-Th

Real-Time Training in Hardware Upstream of the Trigger

Speaker
Bostjan Macek

Location
Sala Phra Kieo, Second Floor

Rapid Deployment and Plugin-Based Architecture Design of Interactive Analysis Workbench (INK) at IHEP

Speakers
Jingyan Shi, Xuantong Zhang

Location
Sala Phra Kieo, Second Floor

PRAETOR - Provenance generation of Astronomical Workflows

Speaker
Michael Johnson

Location
Sala Phra Kieo, Second Floor

Optimizing XRootD-Ceph plugin performance for RAL disk storage

Speakers
Alexander Rogovskiy, Jyothish Thomas

Location
Sala Phra Kieo, Second Floor

Next-Generation of Calibration Management System for ATLAS Tile Calorimeter

Speakers
Avetisyan, David Avetisyan

Location
Sala Phra Kieo, Second Floor

NetDRIVE: NetZero Digital Research Infrastructure Vision and Expertise. A UK perspective on NetZero Research Computing

Speaker
Caterina Doglioni

Location
Sala Phra Kieo, Second Floor

Machine Learning-Based Enhanced Soft Muon Tagging in Atlas

Speaker
Federico Andrea Corchia

Location
Sala Phra Kieo, Second Floor

Migrating INSPIREHEP Document Harvesting and Curation Workflows to Apache Airflow

Speaker
Ioannis Tsanaktsidis

Location
Sala Phra Kieo, Second Floor

MC tuning from the commissioning to the physics data taking in JUNO

Speaker
Peidong Yu

Location
Board: 214-Th

Improving GlideinWMS Factory Compute Resource Configuration with Automation Tools

Speaker
Florian Von Cube

Location
Board: 202-Th

GPT-like transformer model for silicon tracking detector simulation

Speaker
Tadej Novak

Location
Board: 218-Th

From Hits to Tracks: A Transformer Approach for Track Reconstruction in Drift Chambers

Speaker
Yipu Liao

Location
Sala Phra Kieo, Second Floor

Integration of JupyterHub with the Slurm cluster at GSI

Speaker
Florian Uhlig

Location
Sala Phra Kieo, Second Floor

From database-backed to stateless OAuth2 access tokens in INDIGO IAM

Speakers
Berk Balci, Francesco Giacomini

Location
Board: 210-Th

Fast Simulation Of FARICH Detector Using Generative Adversarial Networks

Speaker
Dr Alexey Boldyrev

Location
Sala Phra Kieo, Second Floor

Developing reusable systems in the Glance project at CERN

Speakers
Pedro Glaser De Senna, Pedro Glaser de Senna

Location
Sala Phra Kieo, Second Floor

Demonstrating the Processing Chain for the Next Generation Triggers in the CMS Experiment

Speaker
Dr Mateusz Zarucki

Location
Sala Phra Kieo, Second Floor

Closing the VM Capacity Gap: Native and Container Solutions to Improve Volunteer Computing Throughput

Speaker
Lorenzo Valentini

Location
Sala Phra Kieo, Second Floor

Charged Particle Tracking with Reinforcement Learning for Drift Chambers

Speaker
Yao Zhang

Location
Sala Phra Kieo, Second Floor

Background jobs for recovering CPU usage during draining phases: ATLAS use case

Speaker
Sebastian Wozniewski

Location
Sala Phra Kieo, Second Floor

Attention-Driven Context Enrichment for Stabilized Real-Time Jet Tagging

Speaker
Tarik Ourida

Location
Sala Phra Kieo, Second Floor

Application of Unity-based Visualization in HEP experiments

Speaker
Minghua Liao

Location
Sala Phra Kieo, Second Floor

Anomaly Detection in dCache Billing Data

Speakers
Christian Voss, Marina Sahakyan, Mr Tigran Mkrtchyan

Location
Sala Phra Kieo, Second Floor

An XRootD Agent as A Unified Storage Interface for INK Platform

Speakers
Prof. Haibo Li, Xuantong Zhang, Dr Yujiang BI

Location
Sala Phra Kieo, Second Floor

Agentic Assistant in the LHCb Real-Time Analysis

Speaker
Pawel Kopciewicz

Location
Sala Phra Kieo, Second Floor

Advances in Awareness of Sustainability in the community of Research on Universe and Matter

Speaker
Stefan Krischer

Location
Sala Phra Kieo, Second Floor

40 MHz Data Scouting at CMS during LHC Run 3 and beyond

Speaker
Thomas Owen James

Location
Board: 136-Th

Upgrade of the KEDR detector DAQ system and beyond

Speaker
Dmitriy Maximov

Location
Board: 132-Th

4:15 PM