



## ICHEP 2024

## Friday 19 July 2024

Poster Session 2: Poster Session 2 - Foyer Floor 2 (19:00 - 21:00)

| [id] title  | presenter                      | board |
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| [412] From software to hardware: An easy guide to accelerate algorithms for the HL-LHC upgrades of CMS trigger system               | LEGUINA, Pelayo                |       |
| [405] The LHCb Mighty Tracker   | LIN, Tai-Hua                   |       |
| [443] Final Performances for electron and photon calibration reconstruction and identification at ATLAS                             | BOUDET, Leo                    |       |
| [693] Development of the Browser-based 3D Visualisation Approach for the ATLAS Outreach Applications                                | OLIVEIRA DAMAZIO, Denis        |       |
| [47] ATLAS ITk Production Database usage  | WRAIGHT, Kenneth Gibb          |       |
| [45] Design and testing of photon-based hardware random number generator  | BEZNOSKO, Dmitriy              |       |
| [691] Unique Properties of Daily Proton Fluxes up to 100 GV   | FALDI, Francesco               |       |
| [788] Low Emittance Optics Design for CEPC Booster  | Dr WANG, Dou                   |       |
| [463] A Top Friendship: Measurement of ttH production in the H(bb) decay channel at ATLAS with Transformer Networks                 | TIAN, Yusong                   |       |
| [588] Detector identifier and geometry management system in JUNO experiment   | WU, Chengxin                   |       |
| [521] Application of high energy physics detector description transformation for visualization in Unity                             | SONG, Tianzi                   |       |
| [491] Event Visualization with Unity in BESIII experiment   | LI, Jingshu                    |       |
| [433] Data Quality Monitoring System for the JUNO Experiment  | HUANG, Kaixuan                 |       |
| [383] Constraining Majoron from Big-Bang Nucleosynthesis  | Mr GANGULY, Sougata            |       |
| [1199] Differentiable Physics Emulator for Water Cherenkov Detectors  | XIA, Junjie                    |       |
| [1104] Shannon entropy for pp collisions at RHIC and LHC energies   | ALVARADO GARCIA, Jesus Ricardo |       |
| [1267] PrecisionSM: an annotated database for low-energy positron-electron hadronic cross sections                                  | DRIUTTI, Anna                  |       |
| [903] A data-driven method to estimate the antiproton background in Mu2e  | CHITHIRASREEMADAM, Namitha     |       |
| [1131] Lepton Flavour Universality tests and determination of $V_{us}$ using the tau branching fractions fit                        | LUSIANI, Alberto               |       |
| [1338] NNLO fits of top-quark mass using total, single-differential and double-differential $t\text{-}\bar{t}+X$ cross-section data | GARZELLI, Maria Vittoria       |       |
| [1434] Challenging exclusive top quark pair production at low and high luminosity LHC   | ERNANI MARTINS NETO, Daniel    |       |
| [509] Muon Momentum Calibration in ATLAS  | PAZOS, Camila                  |       |
| [1332] Trilinear Higgs Couplings in the THDMs and NTHDM at $e^+e^-$ colliders   | SCHIEBER, Daniel               |       |
| [1043] Status of Higgs-charm coupling measurements at CMS   | DE COEN, Maarten               |       |

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| [992] Searching for heavy neutral leptons through exotic Higgs decays at the ILC  | THOR, Simon                     |  |
| [1005] Discernible NSI effects in Long-baseline Neutrino Experiments  | GIRI, Anjan                     |  |
| [1013] Anticipation of the discovery potential sensitivity of next-generation neutrinoless double beta decay experiments  | Dr SINGH, Manoj Kumar           |  |
| [1020] DUNE'S LOW ENERGY PHYSICS SEARCHES   | MANTHEY CORCHADO, Sergio        |  |
| [1022] Measurements of a Total Inelastic K+-Argon Cross Section at ProtoDUNE-SP   | DIURBA, Richard                 |  |
| [1063] Status of ProtoDUNE-II   | MANZANILLAS VELEZ, Luis Alberto |  |
| [1089] The photo-detection system and double calorimetry in DUNE  | BRUNETTI, Giulia                |  |
| [1097] Neutrino flux simulation for T2K using GEANT4  | DASGUPTA, Pingal                |  |
| [1107] Pion-argon and proton-argon inclusive cross-section measurement using ProtoDUNE-SP 1 GeV beam data   | LIU, Yinrui                     |  |
| [1112] Demonstrating MeV-Scale Physics Capabilities of Large Neutrino LArTPCs with Ambient Blip Activity in MicroBooNE  | ANDRADE, Diego                  |  |
| [1118] Online Event Classification in JUNO  | ZHANG, Yongpeng                 |  |
| [1128] Measurement of cosmic muon flux and cosmogenic neutron production at CJPL  | ZHANG, xinshun                  |  |
| [1140] The Intermediate Water Cherenkov Detector for the Hyper-Kamiokande long-baseline neutrino oscillation program  | AKUTSU, Ryosuke                 |  |
| [1169] 1-ton Prototype Neutrino Detector Upgrade at CJPL-I  | YANG, Yuzi                      |  |
| [1170] Status of the NUCLEUS experiment   | GIAMMEI, Marco                  |  |
| [1189] Quantum Spread Complexity in Neutrino Oscillations   | Dr DIXIT, Khushboo              |  |
| [1223] Observation and Reconstruction of Antiproton Annihilation at Rest in LArIAT  | BASQUE, Vincent                 |  |
| [1232] Achievement in Beam Power Records for the NOvA Target System   | YONEHARA, Katsuya               |  |
| [1247] Likelihood and Deep Learning Analysis of the electron neutrino event sample at Intermediate Water Cherenkov Detector (IWCD) of the Hyper-Kamiokande experiment | Ms MONDAL, Tanima               |  |
| [1248] Sensitivity studies for a next-generation neutrino-mass experiment using tritium $\beta$ -decay  | HEYNS, Svenja                   |  |
| [1256] Low-Energy Calibration of the Hyper-Kamiokande Detector Utilizing a Deuterium Tritium Neutron Generator  | Mr ER-RABIT, Rafik              |  |
| [1334] Interpreting Reactor Antineutrino Anomalies  | Ms EL ATMANI, Ilham             |  |
| [1427] Light sterile neutrinos and implications on mass variables   | Mr PAN, Supriya                 |  |
| [942] Search for low mass vector and scalar resonances decaying into quark-antiquark pairs in proton-proton collisions using the full CMS Run 2 dataset               | KRUPA, Jeffrey                  |  |
| [943] The search for $K_L \rightarrow \pi^0 \pi^0 X$ , $X \rightarrow \gamma \gamma$ in the KOTO experiment   | REDEKER, Joseph                 |  |
| [1049] Search for single production of vector-like top partner $T \rightarrow H^{+} b$ and $H^{\pm} \rightarrow t \bar{b}$ at the HL-LHC                              | BERROUJ, Mbark                  |  |
| [1198] SM fermion scattering off electric charge and CP-violating domain walls in the 2HDM  | Prof. MOORTGAT-PICK, Gudrid     |  |

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| <b>[1308] Search for new light bosons with the KATRIN experiment</b>   | LAUER, Joscha               |  |
| <b>[1372] Probing <math>\tau</math> lepton dipole moments at future Lepton Colliders</b>   | WANG, Zeqiang               |  |
| <b>[1038] The LHeC: Basic Concepts and Layout of the Machine</b>   | ANDRE, Kevin                |  |
| <b>[1085] Diagnostics of the MeV level LWFA electron bunches stability at 1kHz repetition rate</b>   | ZYMAK, Illia                |  |
| <b>[1126] The CEPC radiation protection issues</b>   | TANG, Guangyi               |  |
| <b>[1264] Extraction scheme for future CEBAF FFA based energy upgrade</b>  | KAZIMI, Reza                |  |
| <b>[1446] Neutralina: promoting science and gender-equality in Latin-America</b>   | COLL SARAIVIA, Lucia Ximena |  |
| <b>[1095] What is a particle?</b>  | Dr MELO, Ivan               |  |
| <b>[1439] Underwater Muon Detection System to Measure Coastal Mixed Layer Depth for Ocean and Climate Studies</b>  | KORKMAZ, Muhtesem Akif      |  |
| <b>[1381] A virtual platform for remote surveillance, intervention planning and real-time feedback in research facilities</b>  | LOHWASSER, Kristin          |  |
| <b>[922] Characterization of the First Full Scale HYLITE, an XFEL Pixel Detector Readout Chip</b>  | LI, Mujin                   |  |
| <b>[904] Visualization aided physics analysis in BESIII experiment</b>   | YOU, Zhengyun               |  |
| <b>[960] Cluster counting algorithm with machine learning for drift chamber</b>  | ZHAO, Guang                 |  |
| <b>[1017] ChatQCD: Let Large Language Models Explore QCD</b>   | SULC, Antonin               |  |
| <b>[1018] Revealing Connections in QCD with Machine Learning</b>   | CONNOR, Patrick             |  |
| <b>[1206] Proton Decay Identification in DUNE with Multimodal Machine Learning Fusion Techniques</b>   | GULA GARTMAN, Anna          |  |
| <b>[1272] The Analysis Description Language Ecosystem: Latest developments and physics applications</b>  | SEKMEN, Sezen               |  |
| <b>[1326] Masked image modeling for image completion on simulated calorimeter data</b>   | JARUSKOVA, Kristina         |  |
| <b>[1064] Trigger Primitive Generation using FELIX FPGA system: A Case Study for DUNE</b>  | EARLE, Antony Daniel        |  |
| <b>[1079] DRS4 based SiPM readout system for the cosmic muon veto detector</b>   | MAJUMDER, Gobinda           |  |
| <b>[1154] Simulations of the calorimetry system for the ALLEGRO FCC-ee detector concept</b>  | SOPKOVA, Filomena           |  |
| <b>[1191] First look at particle flow in LAr calorimeter using Pandora in Key4hep framework</b>  | SASIKUMAR, Swathi           |  |
| <b>[1214] Energy and timing resolution boost with waveform analysis</b>  | WANG, Yuyi                  |  |
| <b>[1294] Fast algorithm for 3D online spectrum and hit position reconstruction in segmented semiconductor detectors based on analytical model of charge collection dynamics</b> | Dr JAKUBEK, Jan             |  |
| <b>[1382] Optimized SiPM array readout for scintillation detectors at High Energy Future Facilities</b>  | SÝKOROVÁ, Silvia            |  |
| <b>[961] Development of Upstream Tracker using MAPS for the LHCb Upgrade II</b>  | LI, Yiming                  |  |
| <b>[975] Pileup Mitigation at CMS Level-1 Trigger for the HL-LHC</b>   | PATIL, Mandakini Ravindra   |  |
| <b>[983] Innovative silicon timing sensors for the future ALICE 3 experiment</b>   | COLOCCI, Manuel             |  |
| <b>[1026] Level-1 Trigger monitoring system in the CMS experiment</b>  | JAISWAL, Atul               |  |

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| [1087] Mass aware jet clustering with Variable-R and a soft drop veto   | BENECKE, Anna             |  |
| [1092] Performance of the DUNE Cryogenic Charge Readout Electronics in ProtoDUNE-II   | HUANG, Roger Guo          |  |
| [1225] Level 1 Muon Triggers for the CMS Experiment at the HL-LHC   | KUSMIERSKI, Jakub Piotr   |  |
| [1241] Searches for long-lived particles with ANUBIS: first commissioning results from proANUBIS  | REVERING, Michael         |  |
| [1378] The DAQ system development for the T2K new near detector Super-FGD   | ARIMOTO, Shunta           |  |
| [972] Charge ratio of cosmic muon spectrum at Madurai, India  | CHATTOPADHYAY, Prajjalak  |  |
| [1081] A realistic coalescence model for (anti)nuclei production  | HORST, Maximilian         |  |
| [1141] Effect of thermal fluctuations on dark matter annihilation cross section   | BUTOLA, Prabhat           |  |
| [1175] The multi-PMT Optical Module of KM3NeT   | Dr REA, Immacolata Carmen |  |
| [1179] The development of a demonstrator of the Penetrating Particle Analyzer for space missions  | JELINEK, Jindrich         |  |
| [1301] Thermal effects in CPT and unitarity constraints for higher-order CP asymmetries   | ZAUJEC, Viktor            |  |
| [1435] Cosmological implications of inflaton-mediated dark and visible matter scatterings after reheating   | Mr GOPE, Sourav           |  |
| [920] Radio-impurity studies for dark matter detection with the SABRE South experiment  | Dr SLAVKOVSKA, Zuzana     |  |
| [1352] Cosmic-ray-boosted dark matter in direct detection and neutrino experiments  | KOLEŠOVÁ, Helena          |  |
| [937] Transverse momentum distributions of Charm Meson in Relativistic Heavy-Ions Collisions studied through Non-Extensive Statistics   | GAMEIRO MUNHOZ, Marcelo   |  |
| [991] Machine learning approach for studying dielectrons in LHC Run 3 data with ALICE   | SAMITZ, Daniel            |  |
| [1036] Event-by-event investigation of the two-particle source function with EPOS   | KOVÁCS, László            |  |
| [1053] Status of D-meson measurements in pp collisions at $\sqrt{s} = 13.6$ TeV and Pb--Pb collisions at $\sqrt{s_{\rm NN}} = 5.36$ TeV with ALICE                                | TAVIRA GARCIA, Andrea     |  |
| [1105] Study of the criticality for QGP formation in AA and pp collisions   | ROSALES HERRERA, Diana    |  |
| [1221] Comparison of the $\mathrm{\pi}^{\pm}K^{\pm}$ femtoscopy in Pb--Pb collisions at $\sqrt{s_{\rm NN}} = 5.02$ TeV modeled with (3+1)D hydrodynamics + THERMINATOR 2 and iHKM | Dr CHAKRABORTY, Pritam    |  |
| [1341] Differential Study of $\Lambda$ -hyperon Polarization in Central Heavy-Ion Collisions Within Transport Model Approach  | Mr VITIUK, Oleksandr      |  |
| [979] Global QCD analysis of diffractive parton distribution function considering higher twist corrections within the xFitter framework   | SALAJEGHEH, Maral         |  |
| [1006] Jet origin identification for the high energy frontier   | RUAN, Manqi               |  |
| [880] Data-driven dilepton background estimation improvements for the Drell-Yan analysis at CMS   | AMBROZAS, Marijus         |  |
| [535] Integration of the ACTS track reconstruction toolkit in the ATLAS software for HL-LHC operations  | HASAN, Rosanne Zara       |  |
| [564] Turning noise into data: using pileup for physics   | PIRTTIKOSKI, Antti        |  |
| [573] Data Quality Control of the ALICE Inner Tracking System in the LHC Run 3  | KUSHPIL, Svetlana         |  |

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| <b>[577] Performance of eco-friendly alternative gas mixtures in CMS iRPC detector in the HL-LHC environment</b>   | PINHEIRO, Joao                 |  |
| <b>[583] Latest results of longevity studies on the present CMS Resistive Plate Chamber (RPC) system for the HL-LHC phase</b>                                      | FONSECA DE SOUZA, Sandro       |  |
| <b>[723] Production and quality control for the CMS iRPC</b>   | DE JESUS DAMIAO, Dilson        |  |
| <b>[614] In-beam charged particle detector using 0.2-mm thick plastic scintillator for the J-PARC KOTO experiment</b>  | ONO, Keita                     |  |
| <b>[625] Scintillating sampling ECAL technology for the LHCb PicoCal</b>   | ZHANG, Chenjia                 |  |
| <b>[741] ### Development of the ATLAS Liquid Argon Calorimeter Readout Electronics for the HL-LHC</b>  | BARILLARI, Teresa              |  |
| <b>[754] Performance of CMS Level-1 Trigger Data Scouting during LHC Run 3</b>   | GIORGETTI, Sabrina             |  |
| <b>[834] The Muon Identifier detector for the ALICE 3 experiment</b>   | ROJAS TORRES, Solangel         |  |
| <b>[859] Status of the Liquid Scintillator for JUNO</b>  | XIE, Yuguang                   |  |
| <b>[803] Long-lived particle searches with the ILD experiment</b>  | ZARNECKI, Aleksander           |  |
| <b>[892] W boson mass in gauge-Higgs unification</b>   | ORIKASA, yuta                  |  |
| <b>[510] Enhancing Prompt Lepton Identification: Development and Optimization of the PLIT Tagger</b>   | MARICIC, Ema                   |  |
| <b>[630] Open Data at ATLAS: Bringing TeV collisions to the World</b>  | VIVAS ALBORNOZ, Mariana Isabel |  |
| <b>[883] Long-standing challenges and latest developments in the generation of SMEFT predictions within the Top Sector</b>   | BELVEDERE, Alberto             |  |
| <b>[681] Liquid-based micro-channeling for efficient FPGA cooling</b>  | COCCARO, Andrea                |  |
| <b>[757] Search for heavy scalar resonances in the 4-lepton final state in the CMS experiment</b>  | LIU, Geliang                   |  |
| <b>[595] Studies of rare Higgs decay <math>H \rightarrow Z\gamma</math> in CMS at <math>\sqrt{s} = 13</math> TeV</b>   | CHOU, Yu-Hsuan                 |  |
| <b>[687] Deep Learning applied to VBF Higgs Boson in the <math>\overline{b}b</math> channel: a study of Neural Networks impact on High Energy Physics analysis</b> | BRIANTI, Greta                 |  |
| <b>[732] Long-lived particles from exotic Higgs decays at the FCC-ee</b>   | GALLEN, Axel                   |  |
| <b>[1535] Towards galaxy cluster models in Aether-Scalar-Tensor theory</b>   | DURAKOVIC, Amel                |  |
| <b>[1514] Observation of Entangled Top Quarks at the LHC measured with the CMS Detector at <math>\sqrt{s} = 13</math> TeV</b>                                      | WILDRIDGE, Andrew              |  |
| <b>[697] Broadening the Spectrum of Available States: Promoting Diversity in Physics in the LGBTQ+ Context</b>   | BONILLA, Johan                 |  |
| <b>[1518] Neutron skin- calculations for Pb+Pb, proton+Pb, antiproton+Pb at <math>p \sim 1</math> AGeV (and higher momentum) collisions.</b>                       | PALCZEWSKI, Michal             |  |
| <b>[1516] ATLAS search for ALPs that decay into diphoton in Run 3</b>  | IRWIN, Rebecca Katie           |  |
| <b>[1517] Modern amplitude methods for simple processes in QED.</b>  | PODIVÍN, David                 |  |
| <b>[1449] Celestial amplitudes for Goldstone bosons and soft theorems</b>  | VASKO, Petr                    |  |
| <b>[1193] Collinearly Enhanced YFS MC Approach to Precision High Energy Collider Physics</b>   | WARD, Bennie                   |  |
| <b>[1455] Precision Predictions for Polarized Electroweak Bosons</b>   | PONCELET, Rene                 |  |
| <b>[1456] Prospects of searches for excited neutrinos at the LHC</b>   | MARTINOVICOVA, Gabriela        |  |

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| <b>[1452] Failure of the Baym-Kadanoff construction to consistently match quantum dynamics with thermodynamic critical behavior</b> | KOS, Simon -        |  |
| <b>[1450] Subthreshold parameters of pipi scattering revisited</b>  | KOLESAR, Marian     |  |
| <b>[1454] Nanosecond AI for anomaly detection with decision trees on FPGA</b>   | HONG, Tae Min       |  |
| <b>[1505] Testbeam performance of ALTIROC3 hybrid assemblies with LGAD sensors for the ATLAS HGTD Upgrade</b>                       | YANG, Xiao          |  |
| <b>[753] Searches for Beyond the Standard Model Higgs bosons in fermionic final states within CMS</b>                               | LEYVA PERNIA, Daina |  |
| <b>[1207] Highly granular hadronic calorimeter with scintillating glass tiles: R&amp;D overview and highlights</b>                  | LIU, Yong           |  |