

LHC students poster session

Report of Contributions

Contribution ID: 1

Type: **not specified**

Measurement of the W and Z boson production cross sections in pp collisions at $\sqrt{s} = 13.6$ TeV with CMS

Monday 18 November 2024 17:30 (1 minute)

Presenter: VON DEN DRIESCH, Jost (KIT - Karlsruhe Institute of Technology (DE))

Session Classification: EW interactions and gauge bosons

Contribution ID: 2

Type: **not specified**

W-boson mass measurement at CMS: high-precision determination of muon reconstruction and identification efficiencies

Monday 18 November 2024 17:31 (1 minute)

Presenter: BRUSCHINI, Davide (Scuola Normale Superiore and INFN Pisa (IT))

Session Classification: EW interactions and gauge bosons

Contribution ID: 3

Type: **not specified**

Measurement of the WZ inclusive cross section at 13.6 TeV with CMS

Monday 18 November 2024 17:32 (1 minute)

Presenter: VICO VILLALBA, Carlos (Universidad de Oviedo (ES))

Session Classification: EW interactions and gauge bosons

Contribution ID: 4

Type: **not specified**

The strong coupling constant and its running from inclusive jet production at CMS

Monday 18 November 2024 17:35 (1 minute)

Presenter: GUGLIELMI, Valentina (Deutsches Elektronen-Synchrotron (DE))

Session Classification: Jets and QCD studies

Contribution ID: 6

Type: **not specified**

Obsevation of elliptic anisotropy at high transverse momentum in pPb and PbPb collisions in CMS

Monday 18 November 2024 17:41 (1 minute)

Presenter: SINGH, Rohit Kumar (Indian Institute of Technology Madras (IN))

Session Classification: Heavy Ion collisions

Contribution ID: 7

Type: **not specified**

First measurement of the D0 production in ultraperipheral PbPb collisions with CMS

Monday 18 November 2024 17:42 (1 minute)

Presenter: CHEN, Yu-Chen (Janice) (Massachusetts Institute of Technology)

Session Classification: Heavy Ion collisions

Contribution ID: 8

Type: **not specified**

Measurement of the g-2 factor of the tau lepton in Ultrapерipheral Pb-Pb collisions recorded by the CMS experiment

Monday 18 November 2024 17:43 (1 minute)

Presenter: SHOKR, Eslam (University of Zurich (CH))

Session Classification: Heavy Ion collisions

Contribution ID: 9

Type: **not specified**

Measurement of inclusive and differential cross sections of single top quark production in association with a W boson in proton-proton collisions at 13.6 TeV with CMS

Monday 18 November 2024 17:50 (1 minute)

Presenter: SOTO RODRIGUEZ, Alejandro (Universidad de Oviedo (ES))

Session Classification: Top quark physics

Contribution ID: **10**

Type: **not specified**

Dark matter search in mono-Higgs (bb) final state with CMS Run-2 data

Monday 18 November 2024 18:00 (1 minute)

Presenter: LOMTE, Shivani (University of Wisconsin Madison (US))

Session Classification: BSM searches

Contribution ID: 11

Type: **not specified**

Review of vector-like quark searches at CMS experiment

Monday 18 November 2024 18:01 (1 minute)

Presenter: PAL, Kuldeep Kumar (National Institute of Science Education and Research (NISER) (IN))

Session Classification: BSM searches

Contribution ID: 12

Type: **not specified**

Jet energy scale and resolution measurements using Run-3 data collected by the CMS experiment at 13.6 TeV

Monday 18 November 2024 18:05 (1 minute)

Presenter: ZISOPOULOS, Ilias (National and Kapodistrian University of Athens (GR))

Session Classification: Physics and detector performance

Contribution ID: 13

Type: **not specified**

Jet identification criteria for proton-proton collisions at Run 3 collected with the CMS detector

Monday 18 November 2024 18:06 (1 minute)

Presenter: KOTSARINI, Maria (National and Kapodistrian University of Athens (GR))

Session Classification: Physics and detector performance

Contribution ID: 14

Type: **not specified**

Performance of Electron and Photon Triggers in the CMS Level 1 Trigger during Run 3 Operations

Monday 18 November 2024 18:07 (1 minute)

Presenter: PAINESIS, Haris (National and Kapodistrian University of Athens (GR))

Session Classification: Physics and detector performance

Contribution ID: 15

Type: **not specified**

Forward Calorimeter information for the CMS Level 1 Trigger at HL-LHC

Monday 18 November 2024 18:10 (1 minute)

Presenter: GOVEKAR, Pranav Keshav (Tata Inst. of Fundamental Research (IN))

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 16

Type: **not specified**

Performance validation procedure for the PCBs of the ME0 GEM detector for the phase 2 upgrade of the CMS detector

Monday 18 November 2024 18:11 (1 minute)

Presenter: CHAUHAN, Bhawana (Panjab University (IN))

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 17

Type: **not specified**

Performance and Operation of CMS Pixel Tracker in 2023 and 2024

Monday 18 November 2024 18:12 (1 minute)

Presenter: REDDY, Guru (Kansas State University (US))

Session Classification: Detector operations, upgrades and R&D

Contribution ID: **18**

Type: **not specified**

The CMS TEPX detector for the Phase-2 CMS Inner Tracker

Monday 18 November 2024 18:13 (1 minute)

Presenter: CELOTTO, Giovanni (University of Zurich (CH))

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 19

Type: **not specified**

Studies of the CMS MTD Barrel Timing Layer Assembly Procedure at the Tracker Integration Facility

Monday 18 November 2024 18:14 (1 minute)

Presenter: PETERSEN, Brandon Frank (Northeastern University)

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 20

Type: **not specified**

Automated Tests of the Upgraded VFE Cards for the CMS Barrel Electromagnetic Calorimeter

Monday 18 November 2024 18:15 (1 minute)

Presenter: Mr JIANG, Brian X (Northeastern University (US))

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 21

Type: **not specified**

Kalman filter for muon reconstruction in the CMS Phase-2 endcap calorimeter

Monday 18 November 2024 18:16 (1 minute)

Presenter: MATTHEWMAN, Mark Nicholas (HEPHY)

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 22

Type: **not specified**

The CMS Phase-2 High Granularity Calorimeter Endcap Event Reconstruction with the TICL Framework

Monday 18 November 2024 18:17 (1 minute)

Presenter: REDJEB, Wahid (Rheinisch Westfaelische Tech. Hoch. (DE))

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 23

Type: **not specified**

Use of time information in TICL reconstruction for Phase-2 CMS

Monday 18 November 2024 18:18 (1 minute)

Presenter: PEREGO, Aurora (Universita & INFN, Milano-Bicocca (IT))

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 24

Type: **not specified**

Neutrinos at FASER - Cross-section Measurements and Neutrino Energy Reconstruction

Monday 18 November 2024 17:33 (1 minute)

Presenter: ATKINSON, Jeremy (Universitaet Bern (CH))

Session Classification: EW interactions and gauge bosons

Contribution ID: 25

Type: **not specified**

ALICE FoCal upgrade for LS3: R&D and performance

Monday 18 November 2024 18:19 (1 minute)

Presenter: STRANGMANN, Nicolas (Goethe University Frankfurt (DE))

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 26

Type: **not specified**

ALICE 3 TOF detector: simulations and prototype studies for CMOS-LGADs with 20 ps time resolution

Monday 18 November 2024 18:20 (1 minute)

Presenters: FERRERO, Chiara (Universita e INFN Torino (IT)); GIOACHIN, Giulia (Politecnico di Torino (IT))

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 27

Type: **not specified**

ALICE 3 Forward Conversion Tracker detector and physics performance

Monday 18 November 2024 18:21 (1 minute)

Presenter: VAN VEEN, Cas (Heidelberg University (DE))

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 28

Type: **not specified**

Measurements of $Ds1+$, $Ds2^+$ production in pp collisions with ALICE

Monday 18 November 2024 17:45 (1 minute)

Presenters: AGLIETTA, Luca (Universita e INFN Torino (IT)); AGLIETTA, Luca (Universita e INFN Torino (IT))

Session Classification: Physics of heavy flavours (charm and bottom, including production)

Contribution ID: 29

Type: **not specified**

Characterisation of charm hadronisation via charm-hadron azimuthal correlations in pp with ALICE

Monday 18 November 2024 17:46 (1 minute)

Presenter: CATTARUZZI, Samuele (Universita e INFN Trieste (IT))

Session Classification: Physics of heavy flavours (charm and bottom, including production)

Contribution ID: 30

Type: **not specified**

First measurement and investigation of the ρ^0 -proton final-state interaction with ALICE

Monday 18 November 2024 17:36 (1 minute)

Presenter: KORWIESER, Maximilian (Technische Universitaet Muenchen (DE))

Session Classification: Jets and QCD studies

Contribution ID: 31

Type: **not specified**

Topological separation of dielectron sources in pp at 13.6 TeV with ALICE

Monday 18 November 2024 17:37 (1 minute)

Presenter: EISENHUT, Florian (Goethe University Frankfurt (DE))

Session Classification: Jets and QCD studies

Contribution ID: 32

Type: **not specified**

Strangeness production in Pb-Pb collisions at 5.02 TeV with ALICE

Monday 18 November 2024 17:44 (1 minute)

Presenter: BARLOU, Maria (National and Kapodistrian University of Athens (GR))

Session Classification: Heavy Ion collisions

Contribution ID: 33

Type: **not specified**

Hypertriton production in Pb-Pb collisions at 5.02 TeV with ALICE

Monday 18 November 2024 17:45 (1 minute)

Presenter: WANG, Yuanzhe (Fudan University (CN))

Session Classification: Heavy Ion collisions

Contribution ID: 34

Type: **not specified**

ALICE does the double-slit experiment at the femtometer scale with Pb-Pb collisions

Monday 18 November 2024 17:46 (1 minute)

Presenter: RIFFERO, Andrea Giovanni (University and INFN Torino (IT))

Session Classification: Heavy Ion collisions

Contribution ID: 35

Type: **not specified**

Neutrino observation at SND@LHC

Monday 18 November 2024 17:34 (1 minute)

Presenters: ALICANTE, Fabio (Scuola Superiore Meridionale e INFN Sezione di Napoli (IT)); CHARITON, Vasileios (Aristotle University of Thessaloniki (GR))

Session Classification: EW interactions and gauge bosons

Contribution ID: 36

Type: **not specified**

Search for vector-like electrons and muons in multilepton final states in pp collisions at 13 TeV with the ATLAS detector

Monday 18 November 2024 18:02 (1 minute)

Presenter: EPARI, Shalini (IFAE and UAB (ES))

Session Classification: BSM searches

Contribution ID: 37

Type: **not specified**

Performance vs uncertainty in boosted top tagging with the ATLAS detector

Monday 18 November 2024 18:08 (1 minute)

Presenter: GREIF, Kevin Thomas (University of California Irvine (US))

Session Classification: Physics and detector performance

Contribution ID: 38

Type: **not specified**

Measurements of the production cross section for a Z boson in association with b- and c-jets in proton-proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector

Monday 18 November 2024 17:35 (1 minute)

Presenter: BOCCARDO, Lucrezia (INFN e Universita Genova (IT))

Session Classification: EW interactions and gauge bosons

Contribution ID: 39

Type: **not specified**

Operation and maintenance of the custom designed High Voltage Power Supply system for the ATLAS SCT detector

Monday 18 November 2024 18:22 (1 minute)

Presenter: DUDEK, Maria Malgorzata (Polish Academy of Sciences (PL))

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 40

Type: **not specified**

Measurement of the total and differential cross sections of $t\bar{t}W$ production with the ATLAS detector

Monday 18 November 2024 17:51 (1 minute)

Presenter: LOESCHCKE CENTENO, Gianna (University of Sussex (GB))

Session Classification: Top quark physics

Contribution ID: 41

Type: **not specified**

Thermal cycling of the ATLAS ITk strip barrel modules

Monday 18 November 2024 18:23 (1 minute)

Presenter: ASHBY PICKERING, Rachel Amy (University of Warwick (GB))

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 42

Type: **not specified**

Calibration of the ATLAS Tile Calorimeter using Minimum Bias currents

Monday 18 November 2024 18:24 (1 minute)

Presenter: HAVIERNIK, Matej (Charles University (CZ))

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 43

Type: **not specified**

ATLAS New Small Wheel performance studies with LHC Run 3 data

Monday 18 November 2024 18:25 (1 minute)

Presenter: ORLANDINI, Romano (Universita e INFN Roma Tre (IT))

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 44

Type: **not specified**

Recent advances in the GAN-based Fast Calorimeter Simulation of the ATLAS experiment

Monday 18 November 2024 18:09 (1 minute)

Presenter: CORCHIA, Federico Andrea (Universita e INFN, Bologna (IT))

Session Classification: Physics and detector performance

Contribution ID: 45

Type: **not specified**

Improved spatial resolution of ATLAS NSW Micromegas using cluster time correction

Monday 18 November 2024 18:26 (1 minute)

Presenters: VOGEL, Fabian (Ludwig Maximilians Universitat (DE)); D'AMICO, Valerio (Ludwig Maximilians Universitat (DE))

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 46

Type: **not specified**

gFEX - A novel feature extractor for the ATLAS Level-1 Calorimeter Trigger

Monday 18 November 2024 18:27 (1 minute)

Presenter: OMAR, Rabia (Indiana University (US))

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 47

Type: **not specified**

Exploring the lifetime frontier: A search for neutral long-lived particles in the ATLAS hadronic calorimeter

Monday 18 November 2024 18:03 (1 minute)

Presenter: HADDAD, Abdelhamid (LPCA, Univ. Clermont-Auvergne (FR))

Session Classification: BSM searches

Contribution ID: 48

Type: **not specified**

Search for a light CP-odd Higgs boson decaying into a pair of light tau-leptons in pp collisions at 13 TeV with the ATLAS detector

Monday 18 November 2024 18:04 (1 minute)

Presenter: KRESSE, Tom (Technische Universitaet Dresden (DE))

Session Classification: BSM searches

Contribution ID: 49

Type: **not specified**

Search for Higgs boson pairs with multilepton final states in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector

Monday 18 November 2024 17:55 (1 minute)

Presenter: THORNBERRY, Rea (Southern Methodist University (US))

Session Classification: Higgs studies

Contribution ID: 50

Type: **not specified**

Resonant HHH production and the Higgs self-coupling in the 6b final state in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector

Monday 18 November 2024 17:56 (1 minute)

Presenter: KYRIACOU, Nicholas (University of Michigan (US))

Session Classification: Higgs studies

Contribution ID: 51

Type: **not specified**

Search for the nonresonant production of Higgs boson pairs in the $b\bar{b}\tau\tau$ final state with the ATLAS detector

Monday 18 November 2024 17:57 (1 minute)

Presenter: MO, Cen (Shanghai Jiao Tong University (CN))

Session Classification: Higgs studies

Contribution ID: 52

Type: **not specified**

Search for a heavy charged Higgs boson decaying into a W boson and a 125 GeV Higgs boson with the ATLAS detector

Monday 18 November 2024 18:05 (1 minute)

Presenter: GREWE, Simon Gabriel (Max Planck Society (DE))

Session Classification: BSM searches

Contribution ID: 53

Type: **not specified**

Probing initial state effects in nuclear collisions via dijet and spectator neutron measurements with the ATLAS detector

Monday 18 November 2024 17:47 (1 minute)

Presenter: HOPPESCH, Matthew Caleb (University of Illinois at Urbana-Champaign)

Session Classification: Heavy Ion collisions

Contribution ID: 54

Type: **not specified**

Transformer for energy calibration in the ATLAS electromagnetic calorimeter

Monday 18 November 2024 18:10 (1 minute)

Presenter: JIANG, Cheng (The University of Edinburgh (GB))

Session Classification: Physics and detector performance

Contribution ID: 55

Type: **not specified**

Turning noise into data: using pileup for physics in ATLAS

Monday 18 November 2024 18:11 (1 minute)

Presenter: ALVES CARDOSO, Mario (Universite de Geneve (CH))

Session Classification: Physics and detector performance

Contribution ID: 56

Type: **not specified**

Production and test of BI-PRC detectors for the ATLAS phase 2 upgrade

Monday 18 November 2024 18:28 (1 minute)

Presenter: FALSETTI, Gregorio (Universita della Calabria e INFN (IT))

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 57

Type: **not specified**

Measurements of the Higgs boson decays into bottom and charm quarks in the VH production channel with the ATLAS detector

Monday 18 November 2024 17:58 (1 minute)

Presenter: FENG, Zhuoran (Nikhef National institute for subatomic physics (NL))

Session Classification: Higgs studies

Contribution ID: 58

Type: **not specified**

ttH production measurement in the bottom-antibottom Higgs boson decay channel with ATLAS at 13 TeV

Monday 18 November 2024 17:59 (1 minute)

Presenter: SCHEULEN, Chris (Universite de Geneve (CH))

Session Classification: Higgs studies

Contribution ID: 59

Type: **not specified**

Electron trigger studies with ATLAS Event Filter tracking at the HL-LHC

Monday 18 November 2024 18:12 (1 minute)

Presenter: ASLAM, Asim Mohammed (Royal Holloway, University of London (GB))

Session Classification: Physics and detector performance

Contribution ID: **60**

Type: **not specified**

Measurement of ϕ meson production in fixed-target pNe collisions at $\sqrt{s_{NN}} = 68.5$ GeV at LHCb

Monday 18 November 2024 17:48 (1 minute)

Presenter: FABIANO, Federica (Università e INFN Cagliari (IT))

Session Classification: Heavy Ion collisions

Contribution ID: 61

Type: **not specified**

Measurement of $R(\phi)$ and steps towards an angular analysis at LHCb

Monday 18 November 2024 17:47 (1 minute)

Presenter: PAOLUCCI, Lorenzo (University of Warwick (GB))

Session Classification: Physics of heavy flavours (charm and bottom, including production)

Contribution ID: 62

Type: **not specified**

Observation of the open-charm tetraquark state $T_{cs}^{0*}(2870)$ in the $B^- \rightarrow D^- D^0 K_s$ decay with LHCb

Monday 18 November 2024 17:48 (1 minute)

Presenter: ZHOU, Tianwen (Peking University (CN))

Session Classification: Physics of heavy flavours (charm and bottom, including production)

Contribution ID: 63

Type: **not specified**

Measurement of CP violation in $\Lambda_b^0 \rightarrow pK^-$ and $\Lambda_b^0 \rightarrow p\pi^-$ decays at LHCb

Monday 18 November 2024 17:49 (1 minute)

Presenter: CAPORALE, Marco (Universita e INFN, Bologna (IT))

Session Classification: Physics of heavy flavours (charm and bottom, including production)

Contribution ID: 64

Type: **not specified**

Measurement of the CKM angle γ in $B^\pm \rightarrow DK^*(892)^\pm$ decays at LHCb

Monday 18 November 2024 17:50 (1 minute)

Presenter: SULJIK, Fidan (University of Oxford (GB))

Session Classification: Physics of heavy flavours (charm and bottom, including production)

Contribution ID: 65

Type: **not specified**

Data-driven evaluation of the electron identification performance with LHCb 2024 data

Monday 18 November 2024 18:13 (1 minute)

Presenter: VIDRIER VILLALBA, Pol (University of Barcelona (ES))

Session Classification: Physics and detector performance

Contribution ID: **66**

Type: **not specified**

Real-time alignment and calibration at LHCb

Monday 18 November 2024 18:14 (1 minute)

Presenter: BREER, Nils (Technische Universitaet Dortmund (DE))

Session Classification: Physics and detector performance

Contribution ID: 67

Type: **not specified**

Downstream tracking at HLT1 of LHCb

Monday 18 November 2024 18:15 (1 minute)

Presenter: ZHUO, Jiahui (Univ. of Valencia and CSIC (ES))

Session Classification: Physics and detector performance

Contribution ID: 68

Type: **not specified**

Real-time monitoring of the LHCb interaction region with FPGA-based hit reconstruction

Monday 18 November 2024 18:16 (1 minute)

Presenter: PASSARO, Daniele (SNS & INFN Pisa (IT))

Session Classification: Physics and detector performance

Contribution ID: 69

Type: **not specified**

The LHCb Upstream Tracker: Operations and Performance in Run3

Monday 18 November 2024 18:17 (1 minute)

Presenter: CESARE, Sara (Universita e INFN, Milano (IT))

Session Classification: Physics and detector performance

Contribution ID: 70

Type: **not specified**

LHCb SciFi threshold calibration and impact on hit efficiencies

Monday 18 November 2024 18:18 (1 minute)

Presenter: PARMAR, Dhruvanshu Mahesh (Ruhr-Universitaet Bochum (DE))

Session Classification: Physics and detector performance

Contribution ID: 71

Type: **not specified**

SiPM development for LHCb SciFi Upgrade II

Monday 18 November 2024 18:29 (1 minute)

Presenter: RONCHETTI, Federico (EPFL - Ecole Polytechnique Federale Lausanne (CH))

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 72

Type: **not specified**

Primary vertex timing reconstruction with the LHCb RICH detectors

Monday 18 November 2024 18:30 (1 minute)

Presenter: MALENTACCA, Lorenzo (Cern, Milano-Bicocca)

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 73

Type: **not specified**

Study of the performance of the RICH system for the LHCb Upgrade II

Monday 18 November 2024 18:31 (1 minute)

Presenter: ANELLI, Alessia (Universita & INFN, Milano-Bicocca (IT))

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 74

Type: **not specified**

Time resolution studies for the future LHCb PicoCal

Monday 18 November 2024 18:32 (1 minute)

Presenter: BELLAVISTA, Alberto (Universita e INFN, Bologna (IT))

Session Classification: Detector operations, upgrades and R&D

Contribution ID: 75

Type: **not specified**

Monitoring of Beam-Induced Background in ATLAS During Run 3

Monday 18 November 2024 18:19 (1 minute)

Presenter: BAHMANI, Marzieh (Humboldt University of Berlin (DE))

Session Classification: Physics and detector performance

Contribution ID: 76

Type: **not specified**

Multiplicity dependence of quarkonium production in small systems with ALICE

Monday 18 November 2024 17:51 (1 minute)

Presenter: LEGRAS, Gauthier (Universität Münster (DE))

Session Classification: Physics of heavy flavours (charm and bottom, including production)