

## Session Program

May 16 - 20, 2022

The 10th Annual  
Large Hadron Collider Physics Conference  
May 16-21, 2022



# 10th Edition of the Large Hadron Collider Physics Conference

## *Poster Session I*

# Tue, May 17

7:00 PM

## Poster Session I

Session

19:00 – 20:00 **Dynamically groomed jet radius in heavy-ion collisions**

**Speakers**

Adam Takacs, Alba Ontoso, Paul Caucal

19:00 – 20:00

**Charge and heat transport coefficients of a hot and dense QCD matter in the presence of a weak magnetic field**

**Speaker**

Shubhalaxmi Rath

19:00 – 20:00

**Fluid properties of hadron gas produced in relativistic collisions of pp and AA**

**Speaker**

Ronald Scaria

19:00 – 20:00

**Transverse sphericity dependence of global observables in heavy-ion collisions at the LHC using AMPT model**

**Speaker**

Mr Suraj Prasad

19:00 – 20:00

**Measurement of  $R_{\{2\}}(\Delta\eta, \Delta\varphi)$  and  $P_{\{2\}}(\Delta\eta, \Delta\varphi)$  correlation functions in pp collisions at  $\sqrt{s} = 13\sim\text{TeV}$  using ALICE data**

**Speaker**

Baidyanath Sahoo

19:00 – 20:00

**Insight into the magnetic response of hadron gas using non-extensive statistics**

**Speaker**

Mr Girija Sankar Pradhan

19:00 – 20:00

**Measurement of high-pt electron performance in proton-lead collisions in the ATLAS experiment**

**Speaker**

Patrycja Anna Potepa

19:00 – 20:00

**Exclusive dilepton production in ultraperipheral Pb+Pb collisions in ATLAS**

**Speaker**

Agnieszka Ewa Ogrodnik

19:00 - 20:00

**Prediction for global properties in O+O collisions at  $\sqrt{s_{NN}} = 7$  TeV using AMPT model****Speakers**

Debadatta Behera, Raghunath Sahoo

19:00 - 20:00

**Multiplicity-dependent study of  $\Lambda(1520)$  resonance production in pp collisions at  $\sqrt{s} = 5.02$  and 13 TeV with ALICE****Speaker**

Sonali Padhan

19:00 - 20:00

**Multiplicity dependence of intra-jet properties in small collision systems with ALICE****Speaker**

Protttoy Das

19:00 - 20:00

**Measurements of  $\psi(2S)$  production in Pb-Pb collisions with ALICE at the LHC****Speaker**

Hushnud Hushnud

19:00 - 20:00

**Measurement of  $\psi(2S)$  production as a function of charged-particle multiplicity in pp collisions at  $\sqrt{s} = 13$  TeV and p-Pb collisions at  $\sqrt{s_{NN}} = 8.16$  TeV with ALICE at the LHC****Speaker**

Theraa Tork

19:00 - 20:00

**A Deep Learning Based Estimator for Elliptic Flow in Heavy Ion Collisions****Speaker**

Mr Neelkamal Mallick

19:00 - 20:00

**Hint of pion condensation in proton-proton collisions at the LHC using non-extensive Tsallis statistics****Speaker**

Dushmanta Sahu

19:00 - 20:00

**Prospects of the LHCf operation in 2022****Speaker**

Ken Ohashi

19:00 - 20:00

**Implementation of a Portal Dedicated to Higgs Bosons for Experts and the General Public****Speaker**

Andre Sopczak

19:00 - 20:00

**Outreach Modules for a New Particle Search Using the ATLAS Forward Proton Detector and Higgs Boson Physics****Speaker**

Andre Sopczak

19:00 - 20:00

**Crowdfunding your outreach project****Speakers**

Jason Robert Veatch, Mikhail Stolpovskiy

19:00 - 20:00

**QuarkNet in LHC Education and Outreach****Speakers**

Kenneth William Cecire, Marla Glover, Michael Wadness, Shane Wood, Thomas McCauley

19:00 - 20:00

**Sharing ATLAS Science: communicating to the public****Speaker**

Maria Moreno Llacer

19:00 - 20:00

**ATLAS Open Data: developing education and outreach resources from research data****Speaker**

Ricardo Jose Morais Silva Goncalo

19:00 - 20:00

**Educational Printables: from colouring books to cheat & fact sheets****Speaker**

Valerie Buxbaum

19:00 - 20:00

**ATLAS Virtual Visits: Bringing the world to our detector****Speaker**

Elise Maria Le Boulicaut

19:00 - 20:00

**A new ATLAS Visitor Centre****Speaker**

Sascha Mehlhase

19:00 - 20:00

**Increasing Multilingualism in ATLAS' Science Communication****Speaker**

Ana Maria Rodriguez Vera

19:00 - 20:00

**Evolution of Regional, Age and Gender Demographics in the ATLAS Collaboration****Speaker**

Holly Pacey

19:00 - 20:00

**"Particle physics for babies": outreach for the youngest audience****Speaker**

Dr Louie Dartmoor Corpe

19:00 - 20:00

**Point Cloud Deep Learning Methods for Pion Reconstruction in the ATLAS Detector**

**Speaker**

Mariel Pettee

19:00 - 20:00

**Constraining Deep Neural Network classifiers' systematic uncertainty via input feature space reduction****Speaker**

Mr Andrea Di Luca

19:00 - 20:00

**Leveraging universality of jet taggers through transfer learning****Speakers**

Dr Frederic Alexandre Dreyer, Pier Francesco Monni, Radoslaw Piotr Grabarczyk

19:00 - 20:00

**Performance of ATLAS Forward Proton Detector during LHC Run 2****Speaker**

Paula Agnieszka Erland

19:00 - 20:00

**Performance and calibration of the ATLAS Tile Calorimeter****Speaker**

Stefio Yosse Andrean

19:00 - 20:00

**Studies of the long term stability of track selection criteria for the ATLAS track counting luminosity measurement****Speaker**

Thomas Christopher Mclachlan

19:00 - 20:00

**A Tool for Calculation of the Radiation Parameters on the Early Stage of Simulation Geometry Development in CATIA****Speaker**

Alexander Sharmazanashvili

19:00 - 20:00

**The performance of the ATLAS Inner Detector tracking trigger in high pileup collisions at 13 TeV at the Large Hadron Collider (Run-2) and plans for Run-3****Speaker**

Zuchen Huang

19:00 - 20:00

**The new ATLAS triggers for long-lived particles that leave unconventional signature in the tracking detectors****Speaker**

Benjamin Philip Kerridge

19:00 - 20:00

**The Muon Trigger of the ATLAS experiment: performance and improvements for Run 3****Speaker**

Alec Drobac

19:00 - 20:00

**ATLAS Trigger system for Run 3**

**Speaker**

Claudia Merlassino

19:00 - 20:00

**Improved track reconstruction for prompt and long-lived particles in ATLAS for the LHC Run 3****Speaker**

Makayla Vessella

19:00 - 20:00

**Two New Developments on the Statistical Treatment of Flavour Tagging Uncertainties in ATLAS****Speaker**

Yan Ke

19:00 - 20:00

**Measurement of the b -tagging efficiency using multijet events in ATLAS****Speaker**

Valentina Vecchio

19:00 - 20:00

**New ATLAS b-tagging Algorithm for Run3****Speaker**

Alexander Froch

19:00 - 20:00

**Lepton and quark mixing patterns with generalized  $CP$  transformations****Speaker**

Joy Ganguly

19:00 - 20:00

**Theoretical analysis of  $B^0 \rightarrow \phi \ell^+ \ell^-$  decay****Speaker**

Irina Parnova

19:00 - 20:00

**Investigation of the right-handed vector current via unbinned angular analysis of  $B \rightarrow D^*(D\pi)\ell\nu_\ell$** **Speaker**

Zhuoran Huang

19:00 - 20:00

**CP-Violating Invariants in the SMEFT****Speaker**

Emanuele Gendy Abd El Sayed

19:00 - 20:00

 **$p \rightarrow e + \gamma$  in LCSR framework****Speaker**

Anshika Bansal

19:00 - 20:00

**Long lived NMSSM : Analysing some long-lived NSLP signatures in the NMSSM****Speaker**

Amandip De

19:00 - 20:00

**Long-lived dark photons at ATLAS: a search for unconventional signatures at the LHC****Speaker**

Iacopo Longarini

19:00 - 20:00

**Search for neutral long-lived particles decaying into displaced jets in the ATLAS calorimeter****Speaker**

Mason Proffitt

19:00 - 20:00

**Search for Dark Matter produced in association with a Standard Model Higgs boson decaying to b-quarks using the full Run 2 collision data with the ATLAS detector****Speaker**

Jay Chan

19:00 - 20:00

**Investigating New Physics Models with Signature of Same-Sign Diboson  $E\{E\!/\!\!/\}_{T}$** **Speaker**

Dibyashree Sengupta

19:00 - 20:00

**Long-Lived Light Mediators from Higgs boson Decay at HL-LHC, FCC-hh and a Proposal of Dedicated LLP Detectors for FCC-hh****Speaker**

Rhitaja Sengupta

19:00 - 20:00

**Prospects for dark boson searches via exotic Higgs decays in Run 3 and high luminosity era of the LHC****Speaker**

Tamer Elkafrawy

19:00 - 20:00

**Searches for supersymmetry in hadronic final states with the CMS detector****Speaker**

Tribeni Mishra

19:00 - 20:00

**Search for resonant pair production of Higgs bosons in the  $4b$  final state using 139/fb of  $\sqrt{s} = 13$  TeV pp collision data with the ATLAS detector****Speaker**

Rui Zhang

19:00 - 20:00

**Search for Heavy (pseudo)Higgs boson  $A/H$  produced in association with a top-antitop quark pair leading to the final state with four top quarks in pp collisions at  $\sqrt{s} = 13$  TeV with the ATLAS detector**

**Speaker**

Shuhui Huang

19:00 - 20:00

**Search for single production of a vector-like T quark decaying into a Higgs boson and top quark with fully hadronic final states using the ATLAS detector****Speaker**

Joel Hengwei Foo

19:00 - 20:00

**Constraining 3-3-1 Models at the LHC and Future Hadron Colliders****Speaker**

Ms Yoxara Sánchez Villamizar

19:00 - 20:00

**Search for electroweak production of supersymmetric sleptons and charginos with the ATLAS detector****Speaker**

Eric Ballabene

19:00 - 20:00

**W-boson angular coefficients at LHC at high precision****Speaker**

Timea Vitos

19:00 - 20:00

**Intrinsic quantum mechanics behind the Standard Model? - predictions in the baryon and Higgs sectors****Speaker**

Mr Ole Lynnerup Trinhammer

19:00 - 20:00

**Muonic charged Higgs boson discovery channel at the LHC****Speaker**

Mr Mohammed Boukidi

19:00 - 20:00

**Rare Higgs Decays in the Standard Model****Speaker**

Xi Gong

19:00 - 20:00

**Measurement prospects for di-Higgs production in the HH to bbyy channel with the ATLAS experiment at the HL-LHC****Speaker**

Alex Zeng Wang

19:00 - 20:00

**Projected sensitivity of Higgs boson pair production combining the bbyy and bbtatau decay channels at the HL-LHC with the ATLAS detector****Speaker**

Alkaid Cheng

19:00 - 20:00

**Search for the Higgs boson decaying to a pair of muons in pp collisions at 13 TeV with the ATLAS detector**



**Speaker**

Jay Chan

19:00 - 20:00

**Probing the CP nature of the top-Higgs Yukawa coupling in ttH and tH events with H→bb using the ATLAS detector****Speaker**

Zak Lawrence

19:00 - 20:00

**Virtual QCD Corrections to gg->ZH via a Transverse Momentum Expansion****Speaker**

Marco Vitti

19:00 - 20:00

**Pair charged Higgs productions at NLO in e+ e- collider within the Inert Doublet model .****Speaker**

Mr Hamza Abouabid

19:00 - 20:00

**A novel experimental search channel for very light Higgses in the Type-I 2HDM****Speakers**

Semlali Souad, Semlali souad

19:00 - 20:00

**Multi-partonic cascades in expanding medium****Speaker**

Mr Souvik Priyam Adhya

19:00 - 20:00

**Extended relaxation time approximation and relativistic dissipative hydrodynamics****Speaker**

Mrs Dipika Dash

19:00 - 20:00

**Light nuclei production with/without critical fluctuation****Speaker**

Shanjin Wu

19:00 - 20:00

**Spin magnetohydrodynamics****Speaker**

Mr Rajeev Singh

19:00 - 20:00

**Intermittency analysis of charged hadrons generated in Pb-Pb collisions at  $\sqrt{s_{NN}} = 2.76$  TeV and 5.02 TeV using PYTHIA8/ Angantyr****Speaker**

Mr Salman K Malik

19:00 - 20:00

**A new Scattering and Neutrino Detector at the LHC****Speaker**

Dario De Simone

19:00 - 20:00

**Dedicated Triggers for Displaced Jets using Timing Information from Electromagnetic Calorimeter at HL-LHC****Speaker**

Prabhat Solanki

19:00 - 20:00

**ME0 second generation prototype chamber characterization for CMS phase II upgrade in the Muon forward region****Speaker**

Mi Ran Kim

19:00 - 20:00

**Status of the CSM FPGA Irradiation Test for the HL-LHC ATLAS Muon Spectrometer Upgrade****Speaker**

Jem Aizen Mendiola Guhit

19:00 - 20:00

**Upgrade of the ATLAS Luminosity Monitor for HL-LHC****Speaker**

Jack Lindon

19:00 - 20:00

**Upgrade of ATLAS Hadronic Tile Calorimeter for the High Luminosity LHC****Speaker**

Edward Khomotso Nkadimeng

19:00 - 20:00

**Development of the ATLAS Liquid Argon Calorimeter Readout Electronics for the HL-LHC****Speaker**

Maheyer Jamshed Shroff

19:00 - 20:00

**Physics and performance of the High Granularity Timing Detector****Speaker**

Fatima Bendebba

19:00 - 20:00

**Searching for an eco-friendly gas mixture for the ALICE Resistive Plate Chambers****Speaker**

Mr Luca Quaglia

19:00 - 20:00

**The ATLAS New Small Wheel Simulation and Reconstruction Software and Detector Performance Studies****Speaker**

Maria Carnesale

19:00 - 20:00

**The Control System of the New Small Wheel Electronics for the ATLAS experiment****Speaker**

Polyneikis Tzanis

19:00 - 20:00

**Study of the correlation between the construction parameters of the MM readout boards and performance of the Micromegas detectors****Speaker**

Matteo Greco

19:00 - 20:00

**Precision Timing with the CMS MTD Barrel Timing Layer for HL-LHC****Speaker**

John Dervan

19:00 - 20:00

**Reduction of high voltage discharge in GEM detectors for the ME0 station of the CMS forward muon system****Speaker**

Salwa Mohamed

19:00 - 20:00

**Heavy flavor jet tagging algorithm developments at CMS for HL-LHC****Speaker**

Mr Emanuel Pfeffer

19:00 - 20:00

**ATLAS Roman Pots at LHC Run 3 - Detector Status****Speaker**

Rafał Staszewski

19:00 - 20:00

**Developing a production database for the High Granularity Timing Detector for ATLAS Phase-II upgrade****Speaker**

Malak Ait Tamlihat

19:00 - 20:00

**ATLAS LAr Calorimeter Commissioning for LHC Run-3****Speaker**

Federica Piazza

19:00 - 20:00

**Development of the USTC LGAD sensors for the ATLAS HGTD upgrade****Speaker**

Xiangxuan Zheng

19:00 - 20:00

**Event Filter Tracking for the Upgrade of the ATLAS Trigger and Data Acquisition System****Speaker**

Sudha Ahuja

19:00 - 20:00

**The High-Level Trigger for the CMS Phase-2 Upgrade****Speaker**

Thiago Tomei Fernandez

19:00 - 20:00

**CP-violating anomalous interactions at Large Hadron Collider****Speaker**

Ms Apurba Tiwari

19:00 - 20:00

**Measurement of differential cross sections for the production of top quark pairs and of additional jets in pp collisions at  $\sqrt{s} = 13$  TeV****Speaker**

Henriette Aarup Petersen

19:00 - 20:00

**Novel broad-mass search for new scalar particles in FCNC top quark decays using the full Run 2 data of the ATLAS detector****Speaker**

Adrian Salvador Salas

19:00 - 20:00

**Measurement of the top quark pole mass using  $t\bar{t}$ +jet events in the dilepton final state at 13 TeV****Speaker**

Sebastian Wuchterl

19:00 - 20:00

**Measurement of heavy-flavor production in the high-mass dimuon spectrum in pp collisions at  $\sqrt{s} = 13$  TeV with ALICE****Speaker**

Michele Pennisi

19:00 - 20:00

**Determination of the strong-coupling constant from the Z-boson transverse-momentum distribution****Speaker**

Stefano Camarda

19:00 - 20:00

**Energy and momentum-dependent studies of  $R_2$  and  $P_2$  correlation functions in p-p collisions using color reconnection and rope hadronization models****Speaker**

Mr Dibakar Bauri

19:00 - 20:00

**Transverse Spherocity and Multiplicity Dependence of  $R_2$  and  $P_2$  Correlation Functions in pp Collisions at  $\sqrt{s} = 7$  TeV Using PYTHIA8****Speaker**

Baidyanath Sahoo

19:00 - 20:00

**Event shape and multiplicity dependence of  $K^*(892)^0$  production at mid-rapidity in pp collisions at  $\sqrt{s} = 13$  TeV with ALICE at the LHC****Speaker**

Suman Deb

19:00 - 20:00

**Proton parton distribution functions using ATLAS data**

**Speaker**

Eimear Isobel Conroy

19:00 - 20:00 **First inverse moments of heavy-hadron distribution amplitudes****Speaker**

Alisa Shukhtina

19:00 - 20:00

**Measurement and QCD analysis of double-differential inclusive jet cross sections at 13 TeV****Speaker**

Toni Makela

19:00 - 20:00

**New tunes of PYTHIA8 to the Minimum Bias data at 13TeV using different PDF sets****Speaker**

Nameeqa Firdous

19:00 - 20:00

**Probing phenomenological models implemented in PYTHIA8****Speaker**

Nameeqa Firdous

19:00 - 20:00

**Measurement of the forward  $\eta$  meson production cross section in p-p collisions at  $\sqrt{s}=13$  TeV with the LHCf Arm2 detector****Speaker**

Giuseppe Piparo

19:00 - 20:00

**In medium properties of an axion within a 2+1 flavor Polyakov loop enhanced Nambu-Jona-Lasinio model****Speaker**

Dr Arpan Das

19:00 - 20:00

**Quarks and gluons in the Lund plane****Speaker**

Adam Takacs

19:00 - 20:00

**Probing the hadronic phase of large hadronizing system through the study of the  $\Lambda(1520)$  resonance with ALICE at the LHC****Speaker**

Dr Neelima Agrawal

19:00 - 20:00

**Nuclear modification factors of prompt and non-prompt  $J/\psi$  in Pb-Pb collisions at  $\sqrt{s_{NN}}= 5.02$  TeV at midrapidity with ALICE****Speaker**

Mr Himanshu Sharma

19:00 - 20:00

**Transverse sphericity and multiplicity dependent study of various higher order moments of  $\langle p_{\text{T}} \rangle$  distribution in pp collisions using PYTHIA8**

**Speaker**

Subhadeep Roy

19:00 - 20:00

**Study of resonance's properties in heavy-ion collisions using angular hadron-resonance correlations in ALICE experiment.****Speaker**

Zuzana Jakubcinova

19:00 - 20:00

**Scaling properties of charged particles generated in Xe-Xe collisions at  $\sqrt{s_{NN}} = 5.44$  TeV using AMPT Model****Speaker**

Zarina Banoo

19:00 - 20:00

**Identical-particle (pion and kaon) femtoscopy in Pb-Pb collisions at  $\sqrt{s_{NN}} = 5.02$  TeV with Therminator2 modeled with (3+1)D viscous hydrodynamics****Speaker**

Pritam Chakraborty

8:00 PM