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Education Information

Doctorate, Cukurova University, Fen Bilimleri, Turkey 2007 - 2014

Postgraduate, Cukurova University, Fen Bilimleri, Turkey 2003 - 2007

Masters (Non-Thesis), Cukurova University, Fen Bilimleri, Turkey 2003 - 2004

Undergraduate, Niğde Üniversitesi, Fen Edebiyat Fakültesi, Turkey 1999 - 2003

Certificates, Courses and Trainings

Data Analysis, Beyond the Standard Model: Results with the 7 TeV LHC Collision Data, ICTP, 2011

Data Analysis, Using Physics Analysis Toolkit in CMS data analysis (CERN), CERN, 2009

Data Analysis, Hızlandırıcı ve Parçacık Fiziğinde Bilgisayar Uygulamaları Okulu, Türkiye Atom Enerjisi Kurumu(TAEK), 2009

Data Analysis, YEF@TR-GRID Okulu, Türkiye Atom Enerjisi Kurumu (TAEK), 2008

Dissertations

Doctorate, Search For a W' Gauge Boson Decaying to WZ in Proton-Proton Collisions at $\sqrt{s} = 7$ TeV, Cukurova University, Fen Bilimleri, Fizik, 2014

Postgraduate, CMS Deneyindeki Supersimetri Araştırmaları, Cukurova University, Fen Bilimleri, Fizik, 2007

Research Areas

Physics, Basic Particles and Areas, Natural Sciences

Academic Titles / Tasks

Associate Professor, Istanbul University, Faculty of Science, Department of Physics, 2018 - Continues

Assistant Professor, Istanbul University, Faculty of Science, Department of Physics, 2017 - 2018

Assistant Professor, Istanbul University, Faculty of Science, Department of Physics, 2017 - 2017

Academic and Administrative Experience

Doktora Sonrası Araştırmacı (PostDoc), Bogazici University, Faculty Of Science And Letters, Department Of Physics, 2016 - 2017

Courses

Algorithm and Introduction to Computer Programming, Undergraduate, 2023 - 2024
Event Generators and Fast Simulation in Particle Physics -1, Postgraduate, 2021 - 2022
Data Analysis and Simulations I in High Energy Physics, Undergraduate, 2021 - 2022
İLERİ FİZİK UYGULAMALARI 2, Undergraduate, 2019 - 2020, 2017 - 2018
Kişisel Proje 1, Undergraduate, 2019 - 2020
Temel Tanecikler 1, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018
Fizik IV, Undergraduate, 2018 - 2019
İLERİ FİZİK UYGULAMALARI 1, Undergraduate, 2019 - 2020
Fizik IV, Undergraduate, 2018 - 2019
İLERİ FİZİK UYGULAMALARI 2, Undergraduate, 2017 - 2018
Parçacık Dedektörleri Fiziğine Giriş, Undergraduate, 2017 - 2018
Temel Tanecikler 2, Undergraduate, 2017 - 2018
Temel Tanecikler, Undergraduate, 2018 - 2019, 2017 - 2018
BİLGİSAYAR KULLANIMI, Undergraduate, 2016 - 2017
İLERİ FİZİK UYGULAMALARI 1, Undergraduate, 2017 - 2018

Advising Theses

Adıgüzel A., S Bandında RF Güç Kaynağı ve Dolaştırıcı Tasarımı, Üretimi ve Proton Demet Hattında Kullanımları, Doctorate, O.Koçer(Student), Continues
Adıgüzel A., Hafif iyonları hızlandırmak için RFQ Çalışmaları, Doctorate, Ş.Esen(Student), Continues
Adıgüzel A., ATLAS Verisi ile E6 Büyük Birleşim Teorisi Tarafından Öngörülen Vektör Benzeri Ağır Leptonların Aranması, Postgraduate, A.Sansar(Student), 2024
Adıgüzel A., Çetinkaya H., 20KeV Mikrodalga Deşarj İyon Kaynağında Benzetim Çalışmaları ve Düşük Enerjili Demet Aktarım (DEDA) Hattı Ölçümleri, Postgraduate, A.Hamparsunoğlu(Student), 2022
Adıgüzel A., Space charge calculations and electromagnetic field measurements for low beta proton accelerator, Postgraduate, Ş.Esen(Student), 2021
Adıgüzel A., Design, Production and Measurements of an RF Circulator in the UHF Band, Postgraduate, O.Koçer(Student), 2019

Jury Memberships

Doctorate, Doctorate, Marmara Üniversitesi, October, 2023
Post Graduate, Post Graduate, İstanbul Aydın Üniversitesi, April, 2020

Published journal articles indexed by SCI, SSCI, and AHCI

- Search for pair production of boosted Higgs bosons via vector-boson fusion in the bb^*bb^* final state using pp collisions at $s=13\text{TeV}$ with the ATLAS detector**
Aad G., Aakvaag E., Abbott B., Abdelhameed S., Abeling K., Abicht N., Abidi S., Aboelela M., Aboulhorma A., Abramowicz H., et al.
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.858, 2024 (SCI-Expanded)
- Observation of quantum entanglement with top quarks at the ATLAS detector**

Zwalinski L., Zou W., Zormpa O., Zorbas T., Zoch K., Zoccoli A., Živković L., Ziolkowski M., Zinsser J., Zimine N., et al. Nature, vol.633, no.8030, pp.542-547, 2024 (SCI-Expanded)

- III. **Combination of Searches for Higgs Boson Pair Production in pp Collisions at $\sqrt{s}=13$ TeV with the ATLAS Detector**
Aad G., Aakvaag E., Abbott B., Abdelhameed S., Abeling K., Abicht N., Abidi S., Aboelela M., Aboulhorma A., Abramowicz H., et al.
Physical review letters, vol.133, no.10, pp.101801, 2024 (SCI-Expanded)
- IV. **Studies of the Energy Dependence of Diboson Polarization Fractions and the Radiation-Amplitude-Zero Effect in WZ Production with the ATLAS Detector**
Aad G., Aakvaag E., Abbott B., Abeling K., Abicht N., Abidi S., Aboelela M., Aboulhorma A., Abramowicz H., Abreu H., et al.
Physical review letters, vol.133, no.10, pp.101802, 2024 (SCI-Expanded)
- V. **Search for heavy Majorana neutrinos in $e^{\pm}e^{\pm}$ and $e^{\pm}\mu^{\pm}$ final states via WW scattering in pp collisions at $s=13$ TeV with the ATLAS detector**
Aad G., Aakvaag E., Abbott B., Abdelhameed S., Abeling K., Abicht N., Abidi S., Aboelela M., Aboulhorma A., Abramowicz H., et al.
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.856, 2024 (SCI-Expanded)
- VI. **Search for pair-produced higgsinos decaying via Higgs or Z bosons to final states containing a pair of photons and a pair of b-jets with the ATLAS detector**
Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., et al.
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.856, 2024 (SCI-Expanded)
- VII. **Measurements of the production cross-section for a Z boson in association with b- or c-jets in proton-proton collisions at $s=13$ TeV with the ATLAS detector**
Aad G., Aakvaag E., Abbott B., Abdelhameed S., Abeling K., Abicht N., Abidi S., Aboelela M., Aboulhorma A., Abramowicz H., et al.
European Physical Journal C, vol.84, no.9, 2024 (SCI-Expanded)
- VIII. **Simultaneous energy and mass calibration of large-radius jets with the ATLAS detector using a deep neural network**
Aad G., Aakvaag E., Abbott B., Abdelhameed S., Abeling K., Abicht N., Abidi S., Aboelela M., Aboulhorma A., Abramowicz H., et al.
Machine Learning: Science and Technology, vol.5, no.3, 2024 (SCI-Expanded)
- IX. **Searches for exclusive Higgs boson decays into $D\eta$ and Z boson decays into $D0\gamma$ and $Ks0\gamma$ in pp collisions at $s=13$ TeV with the ATLAS detector**
Aad G., Aakvaag E., Abbott B., Abeling K., Abicht N., Abidi S., Aboelela M., Aboulhorma A., Abramowicz H., Abreu H., et al.
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.855, 2024 (SCI-Expanded)
- X. **Differential cross-sections for events with missing transverse momentum and jets measured with the ATLAS detector in 13 TeV proton-proton collisions**
Aad G., Aakvaag E., Abbott B., Abeling K., Abicht N., Abidi S., Aboelela M., Aboulhorma A., Abramowicz H., Abreu H., et al.
Journal of High Energy Physics, vol.2024, no.8, 2024 (SCI-Expanded)
- XI. **Measurement of the $VH,H \rightarrow \tau\tau$ process with the ATLAS detector at 13 TeV**
Aad G., Aakvaag E., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., et al.
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.855, 2024 (SCI-Expanded)
- XII. **Measurement of ZZ production cross-sections in the four-lepton final state in pp collisions at $s=13.6$ TeV with the ATLAS experiment**
Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Acharya B., et al.
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.855, 2024 (SCI-Expanded)

- XIII. **Search for non-resonant Higgs boson pair production in final states with leptons, taus, and photons in pp collisions at $s = 13$ TeV with the ATLAS detector**
Aad G., Aakvaag E., Abbott B., Abdelhameed S., Abeling K., Abicht N., Abidi S., Aboelela M., Aboulhorma A., Abramowicz H., et al.
Journal of High Energy Physics, vol.2024, no.8, 2024 (SCI-Expanded)
- XIV. **Calibration of a soft secondary vertex tagger using proton-proton collisions at Formula Presented with the ATLAS detector**
Filmer E., Grant C., Green M., Jackson P., Kong A., Pandya H., Ruggeri T., Saha S., Ting E., White M., et al.
Physical Review D, vol.110, no.3, 2024 (SCI-Expanded)
- XV. **Search for leptoquark pair production decaying into $te\text{-}t\bar{e}+$ or $t\mu\text{-}t\bar{\mu}+$ in multi-lepton final states in pp collisions at $s=13\text{TeV}$ with the ATLAS detector**
Aad G., Abbott B., Abbott D., Abeling K., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Hoffman A. C. A., et al.
European Physical Journal C, vol.84, no.8, 2024 (SCI-Expanded)
- XVI. **Search for low-mass resonances decaying into two jets and produced in association with a photon or a jet at Formula Presented with the ATLAS detector**
Filmer E., Grant C., Jackson P., Kong A., Pandya H., Potti H., Ruggeri T., Saha S., Ting E., White M., et al.
Physical Review D, no.3, 2024 (SCI-Expanded)
- XVII. **Combination of searches for Higgs boson decays into a photon and a massless dark photon using pp collisions at $s= 13$ TeV with the ATLAS detector**
Aad G., Aakvaag E., Abbott B., Abdelhameed S., Abeling K., Abicht N., Abidi S., Aboelela M., Aboulhorma A., Abramowicz H., et al.
Journal of High Energy Physics, vol.2024, no.8, 2024 (SCI-Expanded)
- XVIII. **Search for the nonresonant production of Higgs boson pairs via gluon fusion and vector-boson fusion in the Formula Presented final state in proton-proton collisions at Formula Presented with the ATLAS detector**
Filmer E., Grant C., Jackson P., Kong A., Pandya H., Potti H., Ruggeri T., Saha S., Ting E., White M., et al.
Physical Review D, vol.110, no.3, 2024 (SCI-Expanded)
- XIX. **Accuracy versus precision in boosted top tagging with the ATLAS detector**
Aad G., Aakvaag E., Abbott B., Abdelhameed S., Abeling K., Abicht N., Abidi S., Aboelela M., Aboulhorma A., Abramowicz H., et al.
Journal of Instrumentation, vol.19, no.8, 2024 (SCI-Expanded)
- XX. **Statistical Combination of ATLAS Run 2 Searches for Charginos and Neutralinos at the LHC**
Filmer E., Grant C., Jackson P., Kong A., Pandya H., Potti H., Ruggeri T., Ting E., White M., Gingrich D., et al.
Physical Review Letters, vol.133, no.3, 2024 (SCI-Expanded)
- XXI. **Search for short- and long-lived axion-like particles in $H\rightarrow aa\rightarrow 4\gamma$ decays with the ATLAS experiment at the LHC**
Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Acharya B., et al.
European Physical Journal C, vol.84, no.7, 2024 (SCI-Expanded)
- XXII. **Measurement of the Z boson invisible width at $s=13$ TeV with the ATLAS detector**
Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Acharya B., et al.
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.854, 2024 (SCI-Expanded)
- XXIII. **Search for charged-lepton-flavor violating Formula Presented interactions in top-quark production and decay in Formula Presented collisions at Formula Presented with the ATLAS detector at the LHC**
Filmer E., Grant C., Jackson P., Kong A., Pandya H., Potti H., Ruggeri T., Saha S., Ting E., White M., et al.
Physical Review D, vol.110, no.1, 2024 (SCI-Expanded)
- XXIV. **Inclusive and differential cross-section measurements of $t\bar{t}Z$ production in pp collisions at $s = 13$ TeV with the ATLAS detector, including EFT and spin-correlation interpretations**
Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Acharya B., et al.

al.

Journal of High Energy Physics, vol.2024, no.7, 2024 (SCI-Expanded)

- XXV. **Search for pair-production of vector-like quarks in lepton+jets final states containing at least one b-tagged jet using the Run 2 data from the ATLAS experiment**
Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Acharya B., et al.
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.854, 2024 (SCI-Expanded)
- XXVI. **Observation of electroweak production of $W+W^-$ in association with jets in proton-proton collisions at $s = 13$ TeV with the ATLAS detector**
Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Acharya B., et al.
Journal of High Energy Physics, vol.2024, no.7, 2024 (SCI-Expanded)
- XXVII. **Search for flavour-changing neutral-current couplings between the top quark and the Higgs boson in multi-lepton final states in 13 TeV pp collisions with the ATLAS detector**
Aad G., Aakvaag E., Abbott B., Abeling K., Abicht N., Abidi S., Aboelela M., Aboulhorma A., Abramowicz H., Abreu H., et al.
European Physical Journal C, vol.84, no.7, 2024 (SCI-Expanded)
- XXVIII. **Combination of searches for pair-produced leptoquarks at $s=13$ TeV with the ATLAS detector**
Aad G., Aakvaag E., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., et al.
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.854, 2024 (SCI-Expanded)
- XXIX. **A search for top-squark pair production, in final states containing a top quark, a charm quark and missing transverse momentum, using the 139 fb⁻¹ of pp collision data collected by the ATLAS detector**
Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Acharya B., et al.
Journal of High Energy Physics, vol.2024, no.7, 2024 (SCI-Expanded)
- XXX. **Measurement of t-channel single-top-quark production in pp collisions at $s=5.02$ TeV with the ATLAS detector**
Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Acharya B., et al.
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.854, 2024 (SCI-Expanded)
- XXXI. **Measurement of vector boson production cross sections and their ratios using pp collisions at $s=13.6$ TeV with the ATLAS detector**
Aad G., Aakvaag E., Abbott B., Abdelhameed S., Abeling K., Abicht N., Abidi S., Aboelela M., Aboulhorma A., Abramowicz H., et al.
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.854, 2024 (SCI-Expanded)
- XXXII. **Combination of Measurements of the Top Quark Mass from Data Collected by the ATLAS and CMS Experiments at $\sqrt{s}=7$ and 8 TeV**
Hayrapetyan A., Tumasyan A., Adam W., Andrejkovic J., Bergauer T., Chatterjee S., Damanakis K., Dragicevic M., Hussain P., Jeitler M., et al.
Physical Review Letters, vol.132, no.26, 2024 (SCI-Expanded)
- XXXIII. **Combination of Searches for Resonant Higgs Boson Pair Production Using Formula Presented Collisions at Formula Presented with the ATLAS Detector**
Filmer E., Grant C., Jackson P., Kong A., Pandya H., Potti H., Ruggeri T., Ting E., White M., Gingrich D., et al.
Physical Review Letters, vol.132, no.23, 2024 (SCI-Expanded)
- XXXIV. **Beam-induced backgrounds measured in the ATLAS detector during local gas injection into the LHC beam vacuum**
Aad G., Aakvaag E., Abbott B., Abdelhameed S., Abeling K., Abicht N., Abidi S., Aboelela M., Aboulhorma A., Abramowicz H., et al.
Journal of Instrumentation, vol.19, no.6, 2024 (SCI-Expanded)

- XXXV. **Search for singly produced vectorlike top partners in multilepton final states with Formula Presented of Formula Presented collision data at Formula Presented with the ATLAS detector**
Filmer E., Jackson P., Kong A., Potti H., Ruggeri T., Ting E., White M., Gingrich D., Lindon J., Nishu N., et al.
Physical Review D, vol.109, no.11, 2024 (SCI-Expanded)
- XXXVI. **Search for high-mass resonances in final states with a Formula Presented-lepton and missing transverse momentum with the ATLAS detector**
Jackson P., Kong A., Potti H., Ruggeri T., Sharma A., White M., Gingrich D., Lindon J., Nishu N., Pinfeld J., et al.
Physical Review D, vol.109, no.11, 2024 (SCI-Expanded)
- XXXVII. **Search for pair production of higgsinos in events with two Higgs bosons and missing transverse momentum in Formula Presented Formula Presented collisions at the ATLAS experiment**
Filmer E., Grant C., Jackson P., Kong A., Pandya H., Potti H., Ruggeri T., Ting E., White M., Gingrich D., et al.
Physical Review D, vol.109, no.11, 2024 (SCI-Expanded)
- XXXVIII. **Measurement of jet substructure in boosted Formula Presented events with the ATLAS detector using Formula Presented of 13 TeV Formula Presented collisions**
Filmer E., Grant C., Jackson P., Kong A., Pandya H., Potti H., Ruggeri T., Ting E., White M., Gingrich D., et al.
Physical Review D, vol.109, no.11, 2024 (SCI-Expanded)
- XXXIX. **Measurements of electroweak $W\pm Z$ boson pair production in association with two jets in pp collisions at $s = 13$ TeV with the ATLAS detector**
Aad G., Aakvaag E., Abbott B., Abdelhameed S., Abeling K., Abicht N., Abidi S., Aboelela M., Aboulhorma A., Abramowicz H., et al.
Journal of High Energy Physics, vol.2024, no.6, 2024 (SCI-Expanded)
- XL. **Search for Nearly Mass-Degenerate Higgsinos Using Low-Momentum Mildly Displaced Tracks in pp Collisions at Formula Presented with the ATLAS Detector**
Filmer E., Grant C., Jackson P., Kong A., Pandya H., Potti H., Ruggeri T., Saha S., Ting E., White M., et al.
Physical Review Letters, vol.132, no.22, 2024 (SCI-Expanded)
- XLI. **Azimuthal Angle Correlations of Muons Produced via Heavy-Flavor Decays in 5.02 TeV Pb+Pb and pp Collisions with the ATLAS Detector**
Filmer E., Grant C., Jackson P., Kong A., Pandya H., Potti H., Ruggeri T., Ting E., White M., Gingrich D., et al.
Physical Review Letters, vol.132, no.20, 2024 (SCI-Expanded)
- XLII. **Measurement of t-channel production of single top quarks and antiquarks in pp collisions at 13 TeV using the full ATLAS Run 2 data sample**
Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., et al.
Journal of High Energy Physics, vol.2024, no.5, 2024 (SCI-Expanded)
- XLIII. **Search for new particles in final states with a boosted top quark and missing transverse momentum in proton-proton collisions at $s = 13$ TeV with the ATLAS detector**
Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Acharya B., et al.
Journal of High Energy Physics, vol.2024, no.5, 2024 (SCI-Expanded)
- XLIV. **Improving topological cluster reconstruction using calorimeter cell timing in ATLAS**
Zwalinski L., Zou W., Zormpa O., Zorbas T., Zoch K., Zoccoli A., Živković L., Ziolkowski M., Zinsser J., Zimine N., et al.
European Physical Journal C, vol.84, no.5, 2024 (SCI-Expanded)
- XLV. **The ATLAS experiment at the CERN Large Hadron Collider: a description of the detector configuration for Run 3**
Amerl M., Filmer E., Jackson P., Kong A., Potti H., Ruggeri T., Ting E., White M., Davis P., Gingrich D., et al.
Journal of Instrumentation, vol.19, no.5, 2024 (SCI-Expanded)
- XLVI. **Performance of the ATLAS forward proton Time-of-Flight detector in Run 2**
Filmer E., Grant C., Jackson P., Kong A., Pandya H., Potti H., Ruggeri T., Ting E., White M., Gingrich D., et al.
Journal of Instrumentation, vol.19, no.5, 2024 (SCI-Expanded)
- XLVII. **Measurement and interpretation of same-sign W boson pair production in association with two jets in pp collisions at (Formula presented.) TeV with the ATLAS detector**

Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., et al.

Journal of High Energy Physics, vol.2024, no.4, 2024 (SCI-Expanded)

XLVIII. Study of High-Transverse-Momentum Higgs Boson Production in Association with a Vector Boson in the qqbb Final State with the ATLAS Detector

Aad G., Abbott B., Abbott D., Abed Abud A., Abeling K., Abhayasinghe D., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., et al.

Physical Review Letters, vol.132, no.13, 2024 (SCI-Expanded)

XLIX. Measurement of the Centrality Dependence of the Dijet Yield in Formula Presented Collisions at Formula Presented with the ATLAS Detector

Filmer E., Grant C., Jackson P., Kong A., Pandya H., Potti H., Ruggeri T., Ting E., White M., Gingrich D., et al.

Physical Review Letters, vol.132, no.10, 2024 (SCI-Expanded)

L. Low-energy ion beam diagnostics: an integrated solution

ADIGÜZEL A., Çetinkaya H., Esen Ş., Halis D., İlhan T., Kılıçgedik A., Ogur S., Öz S., ÖZBEY A., Özcan V., et al.

Journal of Instrumentation, vol.19, no.3, 2024 (SCI-Expanded)

LI. A precise measurement of the Z-boson double-differential transverse momentum and rapidity distributions in the full phase space of the decay leptons with the ATLAS experiment at s=8 TeV

Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., et al.

European Physical Journal C, vol.84, no.3, 2024 (SCI-Expanded)

LII. Search for the decay of the Higgs boson to a Z boson and a light pseudoscalar particle decaying to two photons

Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Acharya B., et al.

Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.850, 2024 (SCI-Expanded)

LIII. Search for new phenomena with top-quark pairs and large missing transverse momentum using 140 fb⁻¹ of pp collision data at s = 13 TeV with the ATLAS detector

Aad G., Aakvaag E., Abbott B., Abeling K., Abicht N., Abidi S., Aboelela M., Aboulhorma A., Abramowicz H., Abreu H., et al.

Journal of High Energy Physics, vol.2024, no.3, 2024 (SCI-Expanded)

LIV. Search for New Phenomena in Two-Body Invariant Mass Distributions Using Unsupervised Machine Learning for Anomaly Detection at $\sqrt{s} = 13$ TeV with the ATLAS Detector

Aad G., Abbott B., Abbott D., Abed Abud A., Abeling K., Abhayasinghe D., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., et al.

Physical Review Letters, vol.132, no.8, 2024 (SCI-Expanded)

LIV. Search for quantum black hole production in lepton + jet final states using proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector

Aad G., Abbott B., Abbott D., Abed Abud A., Abeling K., Abhayasinghe D., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., et al.

Physical Review D, vol.109, no.3, 2024 (SCI-Expanded)

LVI. Measurement of the production cross-section of J/ψ and ψ(2S) mesons in pp collisions at s=13 TeV with the ATLAS detector

Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Acharya B., et al.

European Physical Journal C, vol.84, no.2, 2024 (SCI-Expanded)

LVII. Performance and calibration of quark/gluon-jet taggers using 140 fb⁻¹ of pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector

Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Acharya B., et al.

Chinese Physics C, vol.48, no.2, 2024 (SCI-Expanded)

LVIII. Search for pair production of squarks or gluinos decaying via sleptons or weak bosons in final

states with two same-sign or three leptons with the ATLAS detector

Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., et al.

Journal of High Energy Physics, vol.2024, no.2, 2024 (SCI-Expanded)

- LIX. **Electron and photon energy calibration with the ATLAS detector using LHC Run 2 data**
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- LX. **Probing the CP nature of the top-Higgs Yukawa coupling in $t\bar{t}H$ and tH events with $H \rightarrow b\bar{b}$ decays using the ATLAS detector at the LHC**
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- LXI. **Search for non-resonant Higgs boson pair production in the $2b+2\ell+ET_{\text{miss}}$ final state in pp collisions at $s = 13$ TeV with the ATLAS detector**
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- LXII. **Study of $Z \rightarrow l\bar{l}$ decays at $s = 8$ TeV with the ATLAS detector**
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- LXXVII. **Comparison of inclusive and photon-tagged jet suppression in 5.02 TeV Pb+Pb collisions with ATLAS**
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LXXXI. Measurement of Suppression of Large-Radius Jets and Its Dependence on Substructure in Pb+Pb Collisions at Formula Presented with the ATLAS Detector

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LXXXII. Measurement of the Sensitivity of Two-Particle Correlations in pp Collisions to the Presence of Hard Scatterings

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LXXXIII. Observation of the $\gamma\gamma\rightarrow\tau\tau$ Process in Pb+Pb Collisions and Constraints on the τ -Lepton Anomalous Magnetic Moment with the ATLAS Detector

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LXXXIV. Observation of an Excess of Dicharmonium Events in the Four-Muon Final State with the ATLAS Detector

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LXXXV. Search for lepton-flavour violation in high-mass dilepton final states using 139 fb⁻¹ of pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector

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LXXXVI. Search for periodic signals in the dielectron and diphoton invariant mass spectra using 139 fb⁻¹ of pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector

Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., et al.

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LXXXVII. Integrated and differential fiducial cross-section measurements for the vector boson fusion production of the Higgs boson in the Formula Presented decay channel at 13 TeV with the ATLAS detector

Filmer E., Jackson P., Kong A., Potti H., Ruggeri T., Ting E., White M., Gingrich D., Lindon J., Nishu N., et al.

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LXXXVIII. Luminosity determination in pp collisions at $\sqrt{s}=13$ TeV using the ATLAS detector at the LHC

Aad G., Abbott B., Abeling K., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Hoffman A. C. A., Acharya B., et al.

European Physical Journal C, vol.83, no.10, 2023 (SCI-Expanded)

LXXXIX. Search for leptoquarks decaying into the $b\tau$ final state in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector

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XCI. Anomaly detection search for new resonances decaying into a Higgs boson and a generic new

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- XCII. Searches for exclusive Higgs and Z boson decays into a vector quarkonium state and a photon using 139 fb⁻¹ of ATLAS $\sqrt{s}=13$ TeV proton-proton collision data**
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- XCIV. Strong Constraints on Jet Quenching in Centrality-Dependent p+Pb Collisions at 5.02 TeV from ATLAS**
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Aad G., Abbott B., Abbott D., Abeling K., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., et al.
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- XCvI. Search for Heavy Neutral Leptons in Decays of W Bosons Using a Dilepton Displaced Vertex in $\sqrt{s}=13$ TeV pp Collisions with the ATLAS Detector**
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- XCvII. Measurement of the polarisation of W bosons produced in top-quark decays using dilepton events at $s=13$ TeV with the ATLAS experiment**
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- XCvIII. Measurement of the Higgs boson mass in the H $\rightarrow ZZ\ell\ell \rightarrow 4\ell$ decay channel using 139 fb⁻¹ of $s=13$ TeV pp collisions recorded by the ATLAS detector at the LHC**
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- C. Observation of gauge boson joint-polarisation states in W \pm Z production from pp collisions at $s=13$ TeV with the ATLAS detector**
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- CI. Measurement of the charge asymmetry in top-quark pair production in association with a photon with the ATLAS experiment**
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- CII. **Search for flavor-changing neutral-current couplings between the top quark and the Z boson with proton-proton collisions at Formula Presented with the ATLAS detector**
Jackson P., Kong A., Potti H., Ruggeri T., Sharma A., Ting E., White M., Gingrich D., Lindon J., Nishu N., et al.
Physical Review D, vol.108, no.3, 2023 (SCI-Expanded)
- CIII. **Measurement of the production of a W boson in association with a charmed hadron in pp collisions at Formula Presented with the ATLAS detector**
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Physical Review D, vol.108, no.3, 2023 (SCI-Expanded)
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- CV. **Search for pair-produced vector-like top and bottom partners in events with large missing transverse momentum in pp collisions with the ATLAS detector**
Aad G., Abbott B., Abbott D., Abeling K., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., et al.
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- CVI. **Search for displaced photons produced in exotic decays of the Higgs boson using 13 TeV pp collisions with the ATLAS detector**
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- CVII. **Calibration of the light-flavour jet mistagging efficiency of the b-tagging algorithms with Z+jets events using 139 fb⁻¹ of ATLAS proton-proton collision data at $\sqrt{s}=13$ TeV**
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Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., et al.
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- CIX. **Measurement of the inclusive Formula Presented production cross section in the lepton+jets channel in pp collisions at Formula Presented with the ATLAS detector using support vector machines**
Jackson P., Oliver J., Petridis A., Qureshi A., Sharma A., White M., Cairo V., Jain V., Swift S., Gingrich D., et al.
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- CX. **Search for the charged-lepton-flavor-violating decay $Z \rightarrow e\mu$ in pp collisions at Formula Presented with the ATLAS detector**
Jackson P., Kong A., Potti H., Ruggeri T., Sharma A., White M., Gingrich D., Lindon J., Nishu N., Pinfeld J., et al.
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- CXI. **Measurements of W+W- production in decay topologies inspired by searches for electroweak supersymmetry**
Aad G., Abbott B., Abbott D., Abeling K., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., et al.
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- CXII. **Measurements of the suppression and correlations of dijets in Xe+Xe collisions at Formula Presented TeV**
Filmer E., Jackson P., Kong A., Potti H., Ruggeri T., Ting E., White M., Gingrich D., Lindon J., Nishu N., et al.
Physical Review C, vol.108, no.2, 2023 (SCI-Expanded)
- CXIII. **Evidence for the charge asymmetry in (Formula presented.) production at $\sqrt{s} = 13$ TeV with the ATLAS detector**

Aad G., Abbott B., Abbott D., Abeling K., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., et al.

Journal of High Energy Physics, vol.2023, no.8, 2023 (SCI-Expanded)

CXIV. Combination of searches for invisible decays of the Higgs boson using 139 fb⁻¹ of proton-proton collision data at s=13 TeV collected with the ATLAS experiment

Aad G., Abbott B., Abeling K., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., Acharya B., et al.

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CXV. Search for flavour-changing neutral-current couplings between the top quark and the photon with the ATLAS detector at s=13 TeV

Aad G., Abbott B., Abbott D., Abed Abud A., Abeling K., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., et al.

Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.842, 2023 (SCI-Expanded)

CXVI. Search for new phenomena in multi-body invariant masses in events with at least one isolated lepton and two jets using $\sqrt{s} = 13$ TeV proton-proton collision data collected by the ATLAS detector

Aad G., Abbott B., Abbott D., Abeling K., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., et al.

Journal of High Energy Physics, vol.2023, no.7, 2023 (SCI-Expanded)

CXVII. Model-independent search for the presence of new physics in events including $H \rightarrow \gamma\gamma$ with $\sqrt{s} = 13$ TeV pp data recorded by the ATLAS detector at the LHC

Aad G., Abbott B., Abeling K., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., Acharya B., et al.

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CXVIII. Search for a new Z' gauge boson in 4 μ events with the ATLAS experiment

Aad G., Abbott B., Abbott D., Abeling K., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., et al.

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CXIX. Search for dark photons from Higgs boson decays via ZH production with a photon plus missing transverse momentum signature from pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector

Aad G., Abbott B., Abbott D., Abeling K., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., et al.

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CXX. Search for heavy, long-lived, charged particles with large ionisation energy loss in pp collisions at $\sqrt{s} = 13$ TeV using the ATLAS experiment and the full Run 2 dataset

Aad G., Abbott B., Abbott D., Abed Abud A., Abeling K., Abhayasinghe D., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., et al.

Journal of High Energy Physics, vol.2023, no.6, 2023 (SCI-Expanded)

CXXI. Search for resonant and non-resonant Higgs boson pair production in the $bb\bar{\tau}\tau$ decay channel using 13 TeV pp collision data from the ATLAS detector

Aad G., Abbott B., Abbott D., Abed Abud A., Abeling K., Abhayasinghe D., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., et al.

Journal of High Energy Physics, vol.2023, no.7, 2023 (SCI-Expanded)

CXXII. A search for heavy Higgs bosons decaying into vector bosons in same-sign two-lepton final states in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector

Aad G., Abbott B., Abbott D., Abeling K., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., et al.

Journal of High Energy Physics, vol.2023, no.7, 2023 (SCI-Expanded)

CXXIII. Measurement of cross sections for production of a Z boson in association with a flavor-inclusive or doubly b-tagged large-radius jet in proton-proton collisions at Formula Presented with the ATLAS experiment

Jackson P., Kong A., Oliver J., Ruggeri T., Sharma A., White M., Jain V., Swift S., Gingrich D., Pinfold J., et al.

Physical Review D, vol.108, no.1, 2023 (SCI-Expanded)

- CXXIV. **Measurement of the properties of Higgs boson production at $\sqrt{s} = 13$ TeV in the $H \rightarrow \gamma\gamma$ channel using 139 fb⁻¹ of pp collision data with the ATLAS experiment**
Aad G., Abbott B., Abbott D., Abeling K., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., et al.
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- CXXV. **Search for pair-produced scalar and vector leptoquarks decaying into third-generation quarks and first- or second-generation leptons in pp collisions with the ATLAS detector**
Aad G., Abbott B., Abbott D., Abeling K., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., et al.
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- CXXVI. **Search for third-generation vector-like leptons in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector**
Aad G., Abbott B., Abbott D., Abeling K., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., et al.
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- CXXVII. **Exclusive dielectron production in ultraperipheral Pb+Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV with ATLAS**
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- CXXVIII. **Search for leptonic charge asymmetry in $t\bar{t}W$ production in final states with three leptons at $\sqrt{s} = 13$ TeV**
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- CXXIX. **Search for a new scalar resonance in flavour-changing neutral-current top-quark decays $t \rightarrow qX$ ($q = u, c$), with $X \rightarrow b\bar{b}$, in proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector**
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- CXXX. **Measurements of $Z\gamma$ +jets differential cross sections in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector**
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- CXXXI. **Inclusive-photon production and its dependence on photon isolation in pp collisions at $\sqrt{s} = 13$ TeV using 139 fb⁻¹ of ATLAS data**
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- CXXXII. **Search for new phenomena in final states with photons, jets and missing transverse momentum in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector**
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collisions with the ATLAS detector

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- CXXXV. **Search for $t\bar{t} H/A \rightarrow t\bar{t} t\bar{t}$ production in the multilepton final state in proton–proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector**

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- CXXXVII. **Search for excited τ -leptons and leptoquarks in the final state with τ -leptons and jets in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector**

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- CXLII. **Search for high-mass $W\gamma$ and $Z\gamma$ resonances using hadronic W/Z boson decays from 139 fb⁻¹ of pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector**

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- CXLIV. **Search for dark matter produced in association with a dark Higgs boson decaying into $W^+ W^-$ in the one-lepton final state at $\sqrt{s} = 13$ TeV using 139 fb⁻¹ of pp collisions recorded with the ATLAS detector**

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- CXLVIII. **Measurements of observables sensitive to colour reconnection in $t\bar{t}$ events with the ATLAS detector at $\sqrt{s}= 13 \text{ TeV}$**
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- CLI. **Cross-section measurements for the production of a Z boson in association with high-transverse-momentum jets in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector**
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- CLXI. **Measurement of electroweak $Z(\nu\bar{\nu}) \gamma j j$ production and limits on anomalous quartic gauge couplings in pp collisions at $\sqrt{s} = 13 \text{ TeV}$ with the ATLAS detector**
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- CLXIII. **Correlations between flow and transverse momentum in Xe + Xe and Pb + Pb collisions at the LHC with the ATLAS detector: A probe of the heavy-ion initial state and nuclear deformation**
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- CLXX. **Differential $t\bar{t}$ cross-section measurements using boosted top quarks in the all-hadronic final state with 139 fb⁻¹ of ATLAS data**
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- CLXXVI. **Observation of WWW Production in pp Collisions at $s = 13$ TeV with the ATLAS Detector**
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- CLXXVIII. **Measurements of the Higgs boson inclusive and differential fiducial cross-sections in the diphoton decay channel with pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector**
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- CXCIII. **Constraints on Higgs boson production with large transverse momentum using $H \rightarrow b b^{-}$ decays in the ATLAS detector**
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- CXCVI. **Measurement of the energy asymmetry in $t\bar{t} + j$ production at 13 TeV with the ATLAS experiment and interpretation in the SMEFT framework**
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CCIX. **Search for exotic decays of the Higgs boson into long-lived particles in pp collisions at root s=13 TeV using displaced vertices in the ATLAS inner detector**

Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., Abramowicz H., Abreu H., Abulaiti Y., et al.

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CCX. **Search for dark matter produced in association with a Standard Model Higgs boson decaying into b-quarks using the full Run 2 dataset from the ATLAS detector**

Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abramowicz H., Abreu H., et al.

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CCXI. **Measurement of the $t(t)\text{over-bar}(t)\text{over-bar}$ production cross section in pp collisions at root s=13 TeV with the ATLAS detector**

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CCXII. **Search for resonances decaying into photon pairs in 139 fb(-1) of pp collisions at root s=13 TeV with the ATLAS detector**

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CCXIII. **Measurement of the production cross section of pairs of isolated photons in pp collisions at 13 TeV with the ATLAS detector**

Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., Abramowicz H., Abreu H., Abulaiti Y., et al.

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CCXIV. **Search for R-parity-violating supersymmetry in a final state containing leptons and many jets with the ATLAS experiment using root s=13 TeV proton-proton collision data**

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CCXV. **Search for dark matter in events with missing transverse momentum and a Higgs boson decaying into two photons in pp collisions at root s=13 TeV with the ATLAS detector**

Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

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CCXVI. **Search for dark matter produced in association with a single top quark in root s=13 TeV pp collisions with the ATLAS detector**

Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

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CCXVII. **Search for New Phenomena in Final States with Two Leptons and One or No b-Tagged Jets at root S=13 TeV Using the ATLAS Detector**

Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., Abramowicz H., Abreu H., Abulaiti Y., et al.

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Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCXX. **Search for bottom-squark pair production in pp collision events at $\sqrt{s}=13$ TeV with hadronically decaying tau-leptons, b-jets, and missing transverse momentum using the ATLAS detector**
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- CCXXI. **Exclusive dimuon production in ultraperipheral Pb plus Pb collisions at $\sqrt{S_{NN}}=5.02$ TeV with ATLAS**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCXXII. **Measurements of the inclusive and differential production cross sections of a top-quark-antiquark pair in association with a Z boson at $\sqrt{s}=13$ TeV with the ATLAS detector**
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- CCXXIII. **Evidence for Higgs boson decays to a low-mass dilepton system and a photon in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
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- CCXXIX. **Measurement of the relative $B\text{-}c(+/-)/B\text{-}+/-$ production cross section with the ATLAS detector at root $s=8$ TeV**
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- CCXXX. **Search for supersymmetry in events with four or more charged leptons in 139 fb^{-1} of root $s=13$ TeV pp collisions with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abed Abud A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCXXXI. **Search for squarks and gluinos in final states with one isolated lepton, jets, and missing transverse momentum at root $s=13$ with the ATLAS detector**
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- CCXXXII. **Measurements of differential cross-sections in four-lepton events in 13 TeV proton-proton collisions with the ATLAS detector**
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- CCXXXIII. **Performance of the ATLAS RPC detector and Level-1 muon barrel trigger at root $s=13$ TeV**
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- CCXXXIV. **Search for Displaced Leptons in root $s=13$ TeV pp Collisions with the ATLAS Detector**
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- CCXXXVI. **Two-particle azimuthal correlations in photonuclear ultraperipheral Pb plus Pb collisions at 5.02 TeV with ATLAS**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCXXXVII. **Search for pair production of third-generation scalar leptoquarks decaying into a top quark and a tau-lepton in pp collisions at root $s=13$ TeV with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCXXXVIII. **Measurements of Higgs bosons decaying to bottom quarks from vvector boson fusion production with the ATLAS experiment at root $s=13$ TeV**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCXXXIX. **Search for trilepton resonances from chargino and neutralino pair production in root $s=13$ TeV pp collisions with the ATLAS detector**

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- CCXL. **Search for charged Higgs bosons decaying into a top quark and a bottom quark at root $s=13$ TeV with the ATLAS detector**
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- CCXLI. **Measurements of $W+W+\geq 1$ jet production cross-sections in pp collisions at $s=13$ TeV with the ATLAS detector**
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- CCXLII. **Search for new phenomena in events with an energetic jet and missing transverse momentum in pp collisions at root $s=13$ TeV with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCXLIII. **Search for doubly and singly charged Higgs bosons decaying into vector bosons in multi-lepton final states with the ATLAS detector using proton-proton collisions at root $s=13$ TeV**
Aaboud M., Aad G., Abbott B., Abidinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCXLIV. **Search for a heavy Higgs boson decaying into a Z boson and another heavy Higgs boson in the $llbb$ and $llWW$ final states in pp collisions at root $s=13$ TeV with the ATLAS detector**
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- CCXLV. **CutLang as an analysis description language for introducing students to analyses in particle physics**
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- CCXLVI. **Measurement of the associated production of a Higgs boson decaying into b-quarks with a vector boson at high transverse momentum in pp collisions at root $s=13$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abidinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCXLVII. **Observation of photon-induced $W+W-$ production in pp collisions at root $s=13$ TeV using the ATLAS detector**
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- CCXLVIII. **Search for new phenomena in final states with b-jets and missing transverse momentum in root $s=13$ TeV pp collisions with the ATLAS detector**
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- CCXLIX. **Search for new phenomena in events with two opposite-charge leptons, jets and missing transverse momentum in pp collisions at root $s=13$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abidinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCL. Optimisation of large-radius jet reconstruction for the ATLAS detector in 13 TeV proton-proton collisions**
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- CCLI. Measurement of the CP-violating phase $\phi(s)$ in $B\text{-}s(0) \rightarrow J/\psi \phi$ decays in ATLAS at 13 TeV**
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- CCLII. Search for heavy resonances decaying into a pair of Z bosons in the $l^{(+)}l^{(-)}l'^{(+)}l'^{(-)}$ and $l^{(+)}l^{(-)}\nu(\nu)\text{-}\bar{\nu}$ final states using 139 fb⁻¹ of proton-proton collisions at $\sqrt{s}=13\text{TeV}$ with the ATLAS detector**
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- CCLIII. Search for pair production of scalar leptoquarks decaying into first- or second-generation leptons and top quarks in proton-proton collisions at $\sqrt{s}=13\text{TeV}$ with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCLIV. Search for Higgs boson production in association with a high-energy photon via vector-boson fusion with decay into bottom quark pairs at $\sqrt{s}=13\text{TeV}$ with the ATLAS detector**
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Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCLVI. Longitudinal Flow Decorrelations in Xe plus Xe Collisions at $\sqrt{s(NN)}=5.44\text{TeV}$ with the ATLAS Detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
PHYSICAL REVIEW LETTERS, vol.126, no.12, 2021 (SCI-Expanded)
- CCLVII. Search for type-III seesaw heavy leptons in dilepton final states in pp collisions at $\sqrt{s}=13\text{TeV}$ with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abidinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
EUROPEAN PHYSICAL JOURNAL C, vol.81, no.3, 2021 (SCI-Expanded)
- CCLVIII. Measurement of light-by-light scattering and search for axion-like particles with 2.2 nb⁻¹ of Pb+Pb data with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCLIX. Medium-Induced Modification of Z-Tagged Charged Particle Yields in Pb plus Pb Collisions at 5.02 TeV with the ATLAS Detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

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- CCLX. **Differential cross-section measurements for the electroweak production of dijets in association with a Z boson in proton-proton collisions at ATLAS**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
EUROPEAN PHYSICAL JOURNAL C, vol.81, no.2, 2021 (SCI-Expanded)
- CCLXI. **Search for dark matter in association with an energetic photon in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCLXII. **Measurements of WH and ZH production in the $H \rightarrow b\bar{b}$ stretchy="false"></mml:mover> decay channel in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCLXIII. **Search for squarks and gluinos in final states with jets and missing transverse momentum using 139 fb⁻¹ of $\sqrt{s}=13$ TeV pp collision data with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCLXIV. **A search for the dimuon decay of the Standard Model Higgs boson with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
PHYSICS LETTERS B, vol.812, 2021 (SCI-Expanded)
- CCLXV. **Search for phenomena beyond the Standard Model in events with large b-jet multiplicity using the ATLAS detector at the LHC**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
EUROPEAN PHYSICAL JOURNAL C, vol.81, no.1, 2021 (SCI-Expanded)
- CCLXVI. **Measurements of top-quark pair single- and double-differential cross-sections in the all-hadronic channel in pp collisions at $\sqrt{s}=13$ TeV using the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCLXVII. **Measurement of the jet mass in high transverse momentum $Z(\rightarrow b\bar{b})\gamma$ production at $\sqrt{s}=13$ TeV using the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCLXVIII. **Measurement of hadronic event shapes in high-p(T) multijet final states at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCLXIX. **Determination of jet calibration and energy resolution in proton-proton collisions at $\sqrt{s}=8$ TeV using the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

- EUROPEAN PHYSICAL JOURNAL C, vol.80, no.12, 2020 (SCI-Expanded)
- CCLXX. **Observation and Measurement of Forward Proton Scattering in Association with Lepton Pairs Produced via the Photon Fusion Mechanism at ATLAS**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
PHYSICAL REVIEW LETTERS, vol.125, no.26, 2020 (SCI-Expanded)
- CCLXXI. **Search for Heavy Resonances Decaying into a Photon and a Hadronically Decaying Higgs Boson in pp Collisions at $\sqrt{s}=13$ TeV with the ATLAS Detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
PHYSICAL REVIEW LETTERS, vol.125, no.25, 2020 (SCI-Expanded)
- CCLXXII. **Search for resonances decaying into a weak vector boson and a Higgs boson in the fully hadronic final state produced in proton - proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
PHYSICAL REVIEW D, vol.102, no.11, 2020 (SCI-Expanded)
- CCLXXIII. **Search for heavy diboson resonances in semileptonic final states in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
EUROPEAN PHYSICAL JOURNAL C, vol.80, no.12, 2020 (SCI-Expanded)
- CCLXXIV. **Alignment of the ATLAS Inner Detector in Run 2**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
EUROPEAN PHYSICAL JOURNAL C, vol.80, no.12, 2020 (SCI-Expanded)
- CCLXXV. **Search for Higgs boson decays into two new low-mass spin-0 particles in the 4b channel with the ATLAS detector using pp collisions at $\sqrt{s}=13$ TeV**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
PHYSICAL REVIEW D, vol.102, no.11, 2020 (SCI-Expanded)
- CCLXXVI. **Performance of the upgraded PreProcessor of the ATLAS Level-1 Calorimeter Trigger**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
JOURNAL OF INSTRUMENTATION, vol.15, no.11, 2020 (SCI-Expanded)
- CCLXXVII. **Search for new non-resonant phenomena in high-mass dilepton final states with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
JOURNAL OF HIGH ENERGY PHYSICS, vol.2020, no.11, 2020 (SCI-Expanded)
- CCLXXVIII. **Measurement of the $t(\bar{t})$ production cross-section in the lepton plus jets channel at $\sqrt{s}=13$ TeV with the ATLAS experiment**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
PHYSICS LETTERS B, vol.810, 2020 (SCI-Expanded)
- CCLXXIX. **Search for Higgs Boson Decays into a Z Boson and a Light Hadronically Decaying Resonance Using 13 TeV pp Collision Data from the ATLAS Detector**
Aaboud M., Aad G., Abbott B., Abbott D. C., Abdinov O., Abud A. A., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.
PHYSICAL REVIEW LETTERS, vol.125, no.22, 2020 (SCI-Expanded)
- CCLXXX. **Evidence for $t\bar{t}$ production in the multilepton final state in proton-proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**

- Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
EUROPEAN PHYSICAL JOURNAL C, vol.80, no.11, 2020 (SCI-Expanded)
- CCLXXXI. **Reconstruction and identification of boosted di-tau systems in a search for Higgs boson pairs using 13 TeV proton-proton collision data in ATLAS**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
JOURNAL OF HIGH ENERGY PHYSICS, vol.2020, no.11, 2020 (SCI-Expanded)
- CCLXXXII. **Search for top squarks in events with a Higgs or Z boson using 139 fb⁻¹ of pp collision data at root s=13 TeV with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
EUROPEAN PHYSICAL JOURNAL C, vol.80, no.11, 2020 (SCI-Expanded)
- :CLXXXIII. **Search for new phenomena in final states with large jet multiplicities and missing transverse momentum using root s=13 TeV proton-proton collisions recorded by ATLAS in Run 2 of the LHC**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
JOURNAL OF HIGH ENERGY PHYSICS, no.10, 2020 (SCI-Expanded)
- :CLXXXIV. **Search for pairs of scalar leptoquarks decaying into quarks and electrons or muons in root s=13 TeV pp collisions with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
JOURNAL OF HIGH ENERGY PHYSICS, vol.2020, no.10, 2020 (SCI-Expanded)
- CCLXXXV. **A search for the Z gamma decay mode of the Higgs boson in pp collisions at root s=13 TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abbott D. C., Abdinov O., Abud A. A., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.
PHYSICS LETTERS B, vol.809, 2020 (SCI-Expanded)
- :CLXXXVI. **Measurements of the Higgs boson inclusive and differential fiducial cross sections in the 4l decay channel at root s=13 TeV**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
EUROPEAN PHYSICAL JOURNAL C, vol.80, no.10, 2020 (SCI-Expanded)
- CLXXXVII. **Search for t(t)over-bar resonances in fully hadronic final states in pp collisions at root s=13 TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
JOURNAL OF HIGH ENERGY PHYSICS, vol.2020, no.10, 2020 (SCI-Expanded)
- :LXXXVIII. **Search for direct production of electroweakinos in final states with missing transverse momentum and a Higgs boson decaying into photons in pp collisions at root s=13 TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
JOURNAL OF HIGH ENERGY PHYSICS, vol.2020, no.10, 2020 (SCI-Expanded)
- :CLXXXIX. **Operation of the ATLAS trigger system in Run 2**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCXC. **Higgs boson production cross-section measurements and their EFT interpretation in the 4l decay channel at root s=13 TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

- EUROPEAN PHYSICAL JOURNAL C, vol.80, no.10, 2020 (SCI-Expanded)
- CCXCI. **Measurements of inclusive and differential cross-sections of combined $t\bar{t}\gamma$ and $tW\gamma$ production in the $e\mu$ channel at 13 TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
JOURNAL OF HIGH ENERGY PHYSICS, vol.2020, no.9, 2020 (SCI-Expanded)
- CCXCII. **Performance of the ATLAS muon triggers in Run 2**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
JOURNAL OF INSTRUMENTATION, vol.15, no.9, 2020 (SCI-Expanded)
- CCXCIII. **Dijet Resonance Search with Weak Supervision Using $\sqrt{s}=13$ TeV pp Collisions in the ATLAS Detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
PHYSICAL REVIEW LETTERS, vol.125, no.13, 2020 (SCI-Expanded)
- CCXCIV. **Performance of the missing transverse momentum triggers for the ATLAS detector during Run-2 data taking**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
JOURNAL OF HIGH ENERGY PHYSICS, vol.2020, no.8, 2020 (SCI-Expanded)
- CCXCV. **Search for long-lived, massive particles in events with a displaced vertex and a muon with large impact parameter in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
PHYSICAL REVIEW D, vol.102, no.3, 2020 (SCI-Expanded)
- CCXCVI. **Combination of the W boson polarization measurements in top quark decays using ATLAS and CMS data at $\sqrt{s}=8$ TeV**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
JOURNAL OF HIGH ENERGY PHYSICS, vol.2020, no.8, 2020 (SCI-Expanded)
- CCXCVII. **Search for heavy neutral Higgs bosons produced in association with b-quarks and decaying into b-quarks at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abdinov O., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.
PHYSICAL REVIEW D, vol.102, no.3, 2020 (SCI-Expanded)
- CCXCVIII. **Measurement of azimuthal anisotropy of muons from charm and bottom hadrons Pb plus Pb collisions at $\sqrt{s(NN)}=5.02$ TeV with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
PHYSICS LETTERS B, vol.807, 2020 (SCI-Expanded)
- CCXCIX. **Search for direct production of electroweakinos in final states with one lepton, missing transverse momentum and a Higgs boson decaying into two b-jets in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
EUROPEAN PHYSICAL JOURNAL C, vol.80, no.8, 2020 (SCI-Expanded)
- CCC. **Search for a scalar partner of the top quark in the all-hadronic $t(\bar{t})$ plus missing transverse momentum final state at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

- EUROPEAN PHYSICAL JOURNAL C, vol.80, no.8, 2020 (SCI-Expanded)
- CCCI. **Measurements of top-quark pair spin correlations in the $e\mu$ channel at $\sqrt{s}=13$ TeV using pp collisions in the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abbott D. C., Abdinov O., Abud A. A., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.
EUROPEAN PHYSICAL JOURNAL C, vol.80, no.8, 2020 (SCI-Expanded)
- CCCII. **CP Properties of Higgs Boson Interactions with Top Quarks in the $(t\bar{t})\rightarrow H\gamma\gamma$ and tH Processes Using $H\rightarrow\gamma\gamma$ with the ATLAS Detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
PHYSICAL REVIEW LETTERS, vol.125, no.6, 2020 (SCI-Expanded)
- CCCIII. **Observation of the associated production of a top quark and a Z boson in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
JOURNAL OF HIGH ENERGY PHYSICS, vol.2020, no.7, 2020 (SCI-Expanded)
- CCCIV. **Search for the $HH\rightarrow b\bar{b}$ process via vector-boson fusion production using proton-proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
JOURNAL OF HIGH ENERGY PHYSICS, vol.2020, no.7, 2020 (SCI-Expanded)
- CCCIV. **Measurement of the transverse momentum distribution of Drell-Yan lepton pairs in proton-proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCCVI. **Measurements of the production cross-section for a Z boson in association with b-jets in proton-proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCCVII. **Search for Heavy Higgs Bosons Decaying into Two Tau Leptons with the ATLAS Detector Using pp Collisions at $\sqrt{s}=13$ TeV**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
PHYSICAL REVIEW LETTERS, vol.125, no.5, 2020 (SCI-Expanded)
- CCCVIII. **Measurement of the Lund Jet Plane Using Charged Particles in 13 TeV Proton-Proton Collisions with the ATLAS Detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
PHYSICAL REVIEW LETTERS, vol.124, no.22, 2020 (SCI-Expanded)
- CCCIX. **Search for squarks and gluinos in final states with same-sign leptons and jets using 139 fb⁻¹ of data collected with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
JOURNAL OF HIGH ENERGY PHYSICS, vol.2020, no.6, 2020 (SCI-Expanded)
- CCCX. **Test of CP invariance in vector-boson fusion production of the Higgs boson in the $H\rightarrow\tau\tau$ channel in proton-proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
PHYSICS LETTERS B, vol.805, 2020 (SCI-Expanded)

- CCCXI. **Measurement of the $t\bar{t}$ production cross-section and lepton differential distributions in $e\mu$ dilepton events from pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
EUROPEAN PHYSICAL JOURNAL C, vol.80, no.6, 2020 (SCI-Expanded)
- CCCXII. **Search for dijet resonances in events with an isolated charged lepton using $\sqrt{s}=13$ TeV proton-proton collision data collected by the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCCXIII. **Search for light long-lived neutral particles produced in pp collisions at $\sqrt{s}=13$ TeV and decaying into collimated leptons or light hadrons with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
EUROPEAN PHYSICAL JOURNAL C, vol.80, no.5, 2020 (SCI-Expanded)
- CCCXIV. **Evidence for electroweak production of two jets in association with a Z gamma pair in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
PHYSICS LETTERS B, vol.803, 2020 (SCI-Expanded)
- CCCXV. **Search for chargino-neutralino production with mass splittings near the electroweak scale in three-lepton final states in $\sqrt{s}=13$ TeV pp collisions with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
PHYSICAL REVIEW D, vol.101, no.7, 2020 (SCI-Expanded)
- CCCXVI. **ATLAS data quality operations and performance for 2015-2018 data-taking**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
JOURNAL OF INSTRUMENTATION, vol.15, no.4, 2020 (SCI-Expanded)
- CCCXVII. **Search for long-lived neutral particles produced in pp collisions at $\sqrt{s}=13$ TeV decaying into displaced hadronic jets in the ATLAS inner detector and muon spectrometer**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
PHYSICAL REVIEW D, vol.101, no.5, 2020 (SCI-Expanded)
- CCCXVIII. **Measurement of soft-drop jet observables in pp collisions with the ATLAS detector at $\sqrt{s}=13$ TeV**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCCXIX. **Searches for electroweak production of supersymmetric particles with compressed mass spectra in $\sqrt{s}=13$ TeV pp collisions with the ATLAS detector**
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- CCCXX. **Z boson production in Pb plus Pb collisions at $\sqrt{s_{NN}}=5.02$ TeV measured by the ATLAS experiment**
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- CCCXXI. **Measurement of isolated-photon plus two-jet production in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
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- Abramowicz H., et al.
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- CCCXXII. **Measurement of the $Z \rightarrow l^{(+)}l^{(-)}\gamma$ production cross-section in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
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- CCCXXIII. **Search for new resonances in mass distributions of jet pairs using 139 fb^{-1} of pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
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- CCCXXV. **Measurement of Azimuthal Anisotropy of Muons from Charm and Bottom Hadrons in pp Collisions at $\sqrt{s}=13$ TeV with the ATLAS Detector**
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- CCCXXVI. **Search for electroweak production of charginos and sleptons decaying into final states with two leptons and missing transverse momentum in $\sqrt{s}=13$ TeV pp collisions using the ATLAS detector**
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- CCCXXVII. **Search for displaced vertices of oppositely charged leptons from decays of long-lived particles in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
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- CCCXXVIII. **Search for non-resonant Higgs boson pair production in the $b\bar{b}l\nu l\nu$ final state with the ATLAS detector in pp collisions at $\sqrt{s}=13$ TeV**
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- CCCXXX. **Search for the Higgs boson decays $H \rightarrow ee$ and $H \rightarrow e\mu$ in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
 Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCCXXXI. **Measurement of differential cross sections for single diffractive dissociation in $\sqrt{s}=8$ TeV pp collisions using the ATLAS ALFA spectrometer**
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CCCXXXII. **Transverse momentum and process dependent azimuthal anisotropies in root S-NN=8.16 TeV p plus Pb collisions with the ATLAS detector**

Aaboud M., Aad G., Abbott B., Abbott D. C., Abdinov O., Abud A. A., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.

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:CCXXXIII. **Measurement of long-range two-particle azimuthal correlations in Z-boson tagged pp collisions at root s=8 and 13 TeV**

Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

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:CCXXXIV. **Search for Magnetic Monopoles and Stable High-Electric-Charge Objects in 13 TeV Proton-Proton Collisions with the ATLAS Detector**

Aad G., Abbott B., Abbott D. C., Abdinov O., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.

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CCCXXXV. **Performance of electron and photon triggers in ATLAS during LHC Run 2**

Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

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:CCXXXVI. **Searches for lepton-flavour-violating decays of the Higgs boson in root s=13 TeV pp collisions with the ATLAS detector**

Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

PHYSICS LETTERS B, vol.800, 2020 (SCI-Expanded)

CCXXXVII. **Combination of searches for Higgs boson pairs in pp collisions at root s=13 TeV with the ATLAS detector**

Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

PHYSICS LETTERS B, vol.800, 2020 (SCI-Expanded)

:CXXXVIII. **Search for flavour-changing neutral currents in processes with one top quark and a photon using 81 fb(-1) of pp collisions at root s=13 TeV with the ATLAS experiment**

Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

PHYSICS LETTERS B, vol.800, 2020 (SCI-Expanded)

:CCXXXIX. **Combined measurements of Higgs boson production and decay using up to 80 fb(-1) of proton-proton collision data at root S=13 TeV collected with the ATLAS experiment**

Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

PHYSICAL REVIEW D, vol.101, no.1, 2020 (SCI-Expanded)

CCCXL. **Measurement of J/psi production in association with a W-+/- boson with pp data at 8 TeV**

Aaboud M., Aad G., Abbott B., Abbott D. C., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.

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CCCXLI. **Fluctuations of anisotropic flow in Pb plus Pb collisions at root s(NN)=5.02 TeV with the ATLAS detector**

Aaboud M., Aad G., Abbott B., Abbott D. C., Abdinov O., Abud A. A., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.

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CCCXLII. **Measurement of angular and momentum distributions of charged particles within and around jets in Pb plus Pb and pp collisions at root s(NN)=5.02 TeV with the ATLAS detector**

- Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCCXLIII. **Search for bottom-squark pair production with the ATLAS detector in final states containing Higgs bosons, b-jets and missing transverse momentum**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCCXLIV. **Measurements of top-quark pair differential and double-differential cross-sections in the l plus jets channel with pp collisions at root s=13 TeV using the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCCXLV. **Measurement of flow harmonics correlations with mean transverse momentum in lead-lead and proton-lead collisions at root s(NN)=5.02 TeV with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCCXLVI. **Measurement of K-S(0) and Lambda(0) production in tt dileptonic events in pp collisions at root s=7 TeV with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abdinov O., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.
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- CCCXLVII. **Electron and photon performance measurements with the ATLAS detector using the 2015-2017 LHC proton-proton collision data**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCCXLVIII. **Evidence for the production of three massive vector bosons with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abdinov O., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.
PHYSICS LETTERS B, vol.798, 2019 (SCI-Expanded)
- CCCXLIX. **Search for a right-handed gauge boson decaying into a high-momentum heavy neutrino and a charged lepton in pp collisions with the ATLAS detector at root s=13 TeV**
Aaboud M., Aad G., Abbott B., Abbott D. C., Abdinov O., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., et al.
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- CCCL. **Measurement of the production cross section for a Higgs boson in association with a vector boson in the H -> WW* -> l nu l nu channel in pp collisions at root s=13 TeV with the ATLAS detector**
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- CCCLI. **Measurement of W-+/--boson and Z-boson production cross-sections in pp collisions at root s=2.76 TeV with the ATLAS detector**
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- CCCLII. **Experimental high energy physics summer school for high schools**
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- CCCLIII. **Measurement of the inclusive isolated-photon cross section in pp collisions at root s=13 TeV using**

36 fb(-1) of ATLAS data

Aaboud M., Aad G., Abbott B., Abbott D. C., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.

JOURNAL OF HIGH ENERGY PHYSICS, no.10, 2019 (SCI-Expanded)

CCCLIV. Observation of Electroweak Production of a Same-Sign W Boson Pair in Association with Two Jets in pp Collisions at $\sqrt{s}=13$ TeV with the ATLAS Detector

Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

PHYSICAL REVIEW LETTERS, vol.123, no.16, 2019 (SCI-Expanded)

CCCLV. Measurement of fiducial and differential W+W- production cross-sections at $\sqrt{s}=13$ TeV with the ATLAS detector

Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

EUROPEAN PHYSICAL JOURNAL C, vol.79, no.10, 2019 (SCI-Expanded)

CCCLVI. Identification of boosted Higgs bosons decaying into b-quark pairs with the ATLAS detector at 13 TeV

Aad G., Abbott B., Abbott D. C., Abdinov O., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.

EUROPEAN PHYSICAL JOURNAL C, vol.79, no.10, 2019 (SCI-Expanded)

CCCLVII. Measurement of the inclusive cross-section for the production of jets in association with a Z boson in proton-proton collisions at 8 TeV using the ATLAS detector

Aad G., Abbott B., Abbott D. C., Abdinov O., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.

EUROPEAN PHYSICAL JOURNAL C, vol.79, no.10, 2019 (SCI-Expanded)

CCCLVIII. Search for a heavy charged boson in events with a charged lepton and missing transverse momentum from pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector

Aad G., Abbott B., Abbott D. C., Abdinov O., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.

PHYSICAL REVIEW D, vol.100, no.5, 2019 (SCI-Expanded)

CCCLIX. Properties of jet fragmentation using charged particles measured with the ATLAS detector in pp collisions at $\sqrt{s}=13$ TeV

Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

PHYSICAL REVIEW D, vol.100, no.5, 2019 (SCI-Expanded)

CCCLX. Search for diboson resonances in hadronic final states in 139 fb(-1) of pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector

Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., Abreu H., et al.

JOURNAL OF HIGH ENERGY PHYSICS, no.9, 2019 (SCI-Expanded)

CCCLXI. Search for high-mass dilepton resonances using 139 fb(-1) of pp collision data collected at $\sqrt{s}=13$ TeV with the ATLAS detector

Aad G., Abbott B., Abbott D. C., Abdinov O., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.

PHYSICS LETTERS B, vol.796, pp.68-87, 2019 (SCI-Expanded)

CCCLXII. Dijet azimuthal correlations and conditional yields in pp and p plus Pb collisions at $\sqrt{s}=5.02$ TeV with the ATLAS detector

Aaboud M., Aad G., Abbott B., Abbott D. C., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.

PHYSICAL REVIEW C, vol.100, no.3, 2019 (SCI-Expanded)

CCCLXIII. Measurement of the cross-section and charge asymmetry of W bosons produced in proton-proton collisions at $\sqrt{s}=8$ TeV with the ATLAS detector

- Aad G., Abbott B., Abbott D. C., Abidinov O., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.
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- CCCLXIV. **Resolution of the ATLAS muon spectrometer monitored drift tubes in LHC Run 2**
Aad G., Abbott B., Abbott D. C., Abidinov O., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.
JOURNAL OF INSTRUMENTATION, vol.14, 2019 (SCI-Expanded)
- CCCLXV. **Searches for scalar leptoquarks and differential cross-section measurements in dilepton-dijet events in proton-proton collisions at a centre-of-mass energy of $\sqrt{s}=13\text{TeV}$ with the ATLAS experiment**
Aaboud M., Aad G., Abbott B., Abidinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
EUROPEAN PHYSICAL JOURNAL C, vol.79, no.9, 2019 (SCI-Expanded)
- CCCLXVI. **Search for excited electrons singly produced in proton-proton collisions at $\sqrt{s}=13\text{TeV}$ with the ATLAS experiment at the LHC**
Aaboud M., Aad G., Abbott B., Abbott D. C., Abidinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.
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- CCCLXVII. **Search for electroweak diboson production in association with a high-mass dijet system in semileptonic final states in pp collisions at $\sqrt{s}=13\text{TeV}$ with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abidinov O., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.
PHYSICAL REVIEW D, vol.100, no.3, 2019 (SCI-Expanded)
- CCCLXVIII. **Search for low-mass resonances decaying into two jets and produced in association with a photon using pp collisions $\sqrt{s}=13\text{TeV}$ with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abbott D. C., Abidinov O., Abud A. A., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.
PHYSICS LETTERS B, vol.795, pp.56-75, 2019 (SCI-Expanded)
- CCCLXIX. **Measurement of distributions sensitive to the underlying event in inclusive Z boson production in pp collisions at $\sqrt{s}=13\text{TeV}$ with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abidinov O., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.
EUROPEAN PHYSICAL JOURNAL C, vol.79, no.8, 2019 (SCI-Expanded)
- CCCLXX. **Measurement of jet-substructure observables in top quark, W boson and light jet production in proton-proton collisions at $\sqrt{s}=13\text{TeV}$ with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abbott D. C., Abidinov O., Abud A. A., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.
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- CCCLXXI. **Observation of Light-by-Light Scattering in Ultraperipheral Pb plus Pb Collisions with the ATLAS Detector**
Aad G., Abbott B., Abbott D. C., Abidinov O., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.
PHYSICAL REVIEW LETTERS, vol.123, no.5, 2019 (SCI-Expanded)
- CCCLXXII. **Search for chargino and neutralino production in final states with a Higgs boson and missing transverse momentum at $\sqrt{s}=13\text{TeV}$ with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abbott D. C., Abidinov O., Abud A. A., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.
PHYSICAL REVIEW D, vol.100, no.1, 2019 (SCI-Expanded)
- CCCLXXIII. **Comparison of Fragmentation Functions for Jets Dominated by Light Quarks and Gluons from pp and Pb plus Pb Collisions in ATLAS**
Aaboud M., Aad G., Abbott B., Abidinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

- PHYSICAL REVIEW LETTERS, vol.123, no.4, 2019 (SCI-Expanded)
- :CCLXXIV. **Search for scalar resonances decaying into $\mu(+)\mu(-)$ in events with and without b-tagged jets produced in proton-proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abbott D. C., Abdinov O., Abud A. A., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.
JOURNAL OF HIGH ENERGY PHYSICS, no.7, 2019 (SCI-Expanded)
- CCCLXXV. **Measurement of W +/- Z production cross sections and gauge boson polarisation in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abbott D. C., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.
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- :CCLXXVI. **Combination of Searches for Invisible Higgs Boson Decays with the ATLAS Experiment**
Aaboud M., Aad G., Abbott B., Abbott D. C., Abdinov O., Abud A. A., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.
PHYSICAL REVIEW LETTERS, vol.122, no.23, 2019 (SCI-Expanded)
- CCLXXVII. **Observation of electroweak $W(+/-)Z$ boson pair production in association with two jets in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
PHYSICS LETTERS B, vol.793, pp.469-492, 2019 (SCI-Expanded)
- :CLXXVIII. **Search for invisible Higgs boson decays in vector boson fusion at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
PHYSICS LETTERS B, vol.793, pp.499-519, 2019 (SCI-Expanded)
- :CCLXXIX. **Search for long-lived neutral particles in pp collisions at $\sqrt{s}=13$ TeV that decay into displaced hadronic jets in the ATLAS calorimeter**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CCCLXXX. **Modelling radiation damage to pixel sensors in the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abbott D. C., Abdinov O., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
JOURNAL OF INSTRUMENTATION, vol.14, 2019 (SCI-Expanded)
- :CCLXXXI. **Search for heavy charged long-lived particles in the ATLAS detector in 36.1 fb⁻¹ of proton-proton collision data at $\sqrt{s}=13$ TeV**
Aaboud M., Aad G., Abbott B., Abbott D. C., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., et al.
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- CCLXXXII. **Search for single production of vector-like quarks decaying into Wb in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
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- CCLXXXV. **Search for top-quark decays $t \rightarrow Hq$ with 36 fb⁻¹ of pp collision data at root s=13 TeV with the ATLAS detector**
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- CDIII. **Measurement of photon-jet transverse momentum correlations in 5.02 TeV Pb + Pb and pp collisions with ATLAS**
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- CDVII. **Search for squarks and gluinos in final states with hadronically decaying tau-leptons, jets, and missing transverse momentum using pp collisions at root s=13 TeV with the ATLAS detector**
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- CDVIII. **Search for vector-boson resonances decaying to a top quark and bottom quark in the lepton plus jets final state in pp collisions at root s=13 TeV with the ATLAS detector**
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- CDXII. **Search for Higgs boson pair production in the..WW * channel using pp collision data recorded at v s=13 TeV with the ATLAS detector**
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- CDXIII. **Search for resonant W Z production in the fully leptonic final state in proton-proton collisions at root s=13 TeV with the ATLAS detector**
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- CDXIV. **Measurement of the azimuthal anisotropy of charged particles produced in root s NN=5.02 TeV Pb+Pb collisions with the ATLAS detector**
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- CDXV. **Search for new phenomena in events with same-charge leptons and b-jets in pp collisions at ≥ 13 TeV with the ATLAS detector**
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- CDXVI. **Comparison between simulated and observed LHC beam backgrounds in the ATLAS experiment at E-beam=4 TeV**
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- CDXVII. **Combination of the Searches for Pair-Produced Vectorlike Partners of the Third-Generation Quarks at $\sqrt{s}=13$ TeV with the ATLAS Detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CDXVIII. **Observation of Centrality-Dependent Acoplanarity for Muon Pairs Produced via Two-Photon Scattering in Pb plus Pb Collisions at $\sqrt{s(NN)}=5.02$ TeV with the ATLAS Detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CDXIX. **Search for chargino-neutralino production using recursive jigsaw reconstruction in final states with two or three charged leptons in proton-proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CDXX. **Search for lepton-flavor-violating decays of the Z boson into a τ lepton and a light lepton with the ATLAS detector**
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- CDXXI. **Search for lepton-flavor violation in different-flavor, high-mass final states in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
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- CDXXII. **Search for charged Higgs bosons decaying into top and bottom quarks at $\sqrt{s}=13$ TeV with the ATLAS detector**
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- CDXXIII. **Searches for exclusive Higgs and Z boson decays into J/ψ γ , $\psi(2S)$ γ , and $\Upsilon(nS)$ γ at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CDXXIV. **Constraints on off-shell Higgs boson production and the Higgs boson total width in $ZZ \rightarrow 4l$ and $ZZ \rightarrow 2l2\nu$ final states with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

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- CDXXV. **Combined measurement of differential and total cross sections in the $H \rightarrow \gamma\gamma$ and the $H \rightarrow ZZ^* \rightarrow 4l$ decay channels at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CDXXVI. **Observation of $H \rightarrow b(\bar{b})$ decays and VH production with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CDXXVII. **Search for pair production of heavy vectorlike quarks decaying into hadronic final states in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CDXXVIII. **Search for Higgs boson pair production in the $\gamma\gamma b(\bar{b})$ final state with 13TeV pp collision data collected by the ATLAS experiment**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CDXXIX. **Search for dark matter in events with a hadronically decaying vector boson and missing transverse momentum in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CDXXX. **Measurement of the suppression and azimuthal anisotropy of muons from heavy-flavor decays in Pb plus Pb collisions at $\sqrt{s(NN)}=2.76$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CDXXXI. **Probing the Quantum Interference between Singly and Doubly Resonant Top-Quark Production in pp Collisions at $\sqrt{s}=13$ TeV with the ATLAS Detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
PHYSICAL REVIEW LETTERS, vol.121, no.15, 2018 (SCI-Expanded)
- CDXXXII. **Search for the Higgs boson produced in association with a vector boson and decaying into two spin-zero particles in the $H \rightarrow a\bar{a} \rightarrow 4b$ channel in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CDXXXIII. **Pseudorapidity and transverse momentum dependence of flow harmonics in pPb and $PbPb$ collisions**
Sirunyan A. M., Tumasyan A., Adam W., Ambrogio F., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroo J., et al.
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- CDXXXIV. **Prompt and non-prompt J/ψ elliptic flow in Pb plus Pb collisions at $\sqrt{s(NN)}=5.02$ TeV with the ATLAS detector**
Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.
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- CDXXXV. **Combination of searches for heavy resonances decaying into bosonic and leptonic final states using**

36 fb(-1) of proton-proton collision data at root s=13 TeV with the ATLAS detector

Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

PHYSICAL REVIEW D, vol.98, no.5, 2018 (SCI-Expanded)

- CDXXXVI. **Search for charged Higgs bosons decaying via $H \rightarrow \tau \nu$ in the tau plus jets and tau plus lepton final states with 36 fb(-1) of pp collision data recorded at root s=13 TeV with the ATLAS experiment**

Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

JOURNAL OF HIGH ENERGY PHYSICS, no.9, 2018 (SCI-Expanded)

- CDXXXVII. **Search for Higgs bosons produced via vector-boson fusion and decaying into bottom quark pairs in root s=13 TeV pp collisions with the ATLAS detector**

Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

PHYSICAL REVIEW D, vol.98, no.5, 2018 (SCI-Expanded)

- CDXXXVIII. **Observation of Higgs boson production in association with a top quark pair at the LHC with the ATLAS detector**

Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

PHYSICS LETTERS B, vol.784, pp.173-191, 2018 (SCI-Expanded)

- CDXXXIX. **Search for resonances in the mass distribution of jet pairs with one or two jets identified as b-jets in proton-proton collisions at root s=13 TeV with the ATLAS detector**

Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

PHYSICAL REVIEW D, vol.98, no.3, 2018 (SCI-Expanded)

- CDXL. **Measurements of b-jet tagging efficiency with the ATLAS detector using $t\bar{t}$ events at root s=13 TeV**

Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

JOURNAL OF HIGH ENERGY PHYSICS, no.8, 2018 (SCI-Expanded)

- CDXLI. **Measurement of jet fragmentation in Pb plus Pb and pp collisions at root S-NN=5.02 TeV with the ATLAS detector**

Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

PHYSICAL REVIEW C, vol.98, no.2, 2018 (SCI-Expanded)

- CDXLII. **Search for pair production of heavy vector-like quarks decaying into high-(PT) W bosons and top quarks in the lepton-plus-jets final state in pp collisions at root s=13 TeV with the ATLAS detector**

Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., et al.

JOURNAL OF HIGH ENERGY PHYSICS, no.8, 2018 (SCI-Expanded)

- CDXLIII. **Search for flavor-changing neutral currents in top quark decays $t \rightarrow Hc$ and $t \rightarrow Hu$ in multilepton final states in proton-proton collisions at root s=13 TeV with the ATLAS detector**

Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abhayasinghe D. K., Abidi S. H., Abouzeid O. S., Abraham N. L., Abramowicz H., et al.

PHYSICAL REVIEW D, vol.98, no.3, 2018 (SCI-Expanded)

- CDXLIV. **Search for heavy particles decaying into top-quark pairs using lepton-plus-jets events in proton-proton collisions at root s=13 TeV with the ATLAS detector**

Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., Abreu H., et al.

EUROPEAN PHYSICAL JOURNAL C, vol.78, no.7, 2018 (SCI-Expanded)

- CDXLV. **Measurement of the underlying event activity in inclusive Z boson production in proton-proton**

collisions at root s=13 TeV

Sirunyan A. M., Tumasyan A., Adam W., Ambrogi F., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroee J., et al.

JOURNAL OF HIGH ENERGY PHYSICS, no.7, 2018 (SCI-Expanded)

CDXLVI. Search for $W^+ \rightarrow tb$ decays in the hadronic final state using pp collisions at root s=13 TeV with the ATLAS detector

Aaboud M., Aad G., Abbott B., Abdinov O., Abeloos B., Abidi S. H., AbouZeid O. S., Abraham N. L., Abramowicz H., Abreu H., et al.

PHYSICS LETTERS B, vol.781, pp.327-348, 2018 (SCI-Expanded)

CDXLVII. Bose-Einstein correlations in pp, pPb, and PbPb collisions at root s(NN)=0.9-7 TeV

Sirunyan A. M., Tumasyan A., Adam W., Ambrogi F., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroee J., et al.

PHYSICAL REVIEW C, vol.97, no.6, 2018 (SCI-Expanded)

CDXLVIII. Search for single production of a vector-like T quark decaying to a Z boson and a top quark in proton-proton collisions at root s=13 TeV

Sirunyan A. M., Tumasyan A., Adam W., Ambrogi F., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroee J., et al.

PHYSICS LETTERS B, vol.781, pp.574-600, 2018 (SCI-Expanded)

CDXLIX. Measurement of Prompt D-0 Meson Azimuthal Anisotropy in Pb-Pb Collisions at root S-NN=5.02 TeV

Sirunyan A. M., Tumasyan A., Adam W., Ambrogi F., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroee J., et al.

PHYSICAL REVIEW LETTERS, vol.120, no.20, 2018 (SCI-Expanded)

CDL. Search for supersymmetry in events with one lepton and multiple jets exploiting the angular correlation between the lepton and the missing transverse momentum in proton-proton collisions at root s=13 TeV

Sirunyan A. M., Tumasyan A., Adam W., Ambrogi F., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroee J., et al.

PHYSICS LETTERS B, vol.780, pp.384-409, 2018 (SCI-Expanded)

CDLI. Measurement of normalized differential $t(\bar{t})$ cross sections in the dilepton channel from pp collisions at root s=13 TeV

Sirunyan A. M., Tumasyan A., Adam W., Ambrogi F., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroee J., et al.

JOURNAL OF HIGH ENERGY PHYSICS, no.4, 2018 (SCI-Expanded)

CDLII. Suppression of Excited gamma States Relative to the Ground State in Pb-Pb Collisions at root s(NN)=5.02 TeV

Sirunyan A. M., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroee J., Flechl M., et al.

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CDLIII. Search for supersymmetry with Higgs boson to diphoton decays using the razor variables at root s=13 TeV

Sirunyan A. M., Tumasyan A., Adam W., Ambrogi F., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroee J., et al.

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CDLIV. Measurement of associated Z + charm production in proton-proton collisions at $\sqrt{s}=8\text{TeV}$

Sirunyan A. M., Tumasyan A., Adam W., Ambrogi F., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroee J., et al.

European Physical Journal C, vol.78, no.4, 2018 (SCI-Expanded)

CDLV. Search for vectorlike light-flavor quark partners in proton-proton collisions at root s=8 TeV

Sirunyan A. M., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroee J., Flechl M., et al.

PHYSICAL REVIEW D, vol.97, no.7, 2018 (SCI-Expanded)

- CDLVI. **Search for electroweak production of charginos and neutralinos in multilepton final states in proton-proton collisions at root s=13 TeV**
Sirunyan A. M., Tumasyan A., Adam W., Ambrogi F., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroe J., et al.
JOURNAL OF HIGH ENERGY PHYSICS, no.3, 2018 (SCI-Expanded)
- CDLVII. **Search for the pair production of third-generation squarks with two-body decays to a bottom or charm quark and a neutralino in proton-proton collisions at root s=13 TeV**
Sirunyan A. M., Tumasyan A., Adam W., Ambrogi F., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroe J., et al.
PHYSICS LETTERS B, vol.778, pp.263-291, 2018 (SCI-Expanded)
- CDLVIII. **Search for natural supersymmetry in events with top quark pairs and photons in pp collisions at root s=8 TeV**
Sirunyan A. M., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroe J., Flechl M., et al.
JOURNAL OF HIGH ENERGY PHYSICS, no.3, 2018 (SCI-Expanded)
- CDLIX. **Search for Higgs boson pair production in events with two bottom quarks and two tau leptons in proton-proton collisions at root s=13 TeV**
Sirunyan A. M., Tumasyan A., Adam W., Ambrogi F., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroe J., et al.
PHYSICS LETTERS B, vol.778, pp.101-127, 2018 (SCI-Expanded)
- CDLX. **Study of dijet events with a large rapidity gap between the two leading jets in pp collisions at $\sqrt{s}=7\text{TeV}$**
Sirunyan A. M., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Ero J., Flechl M., et al.
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- CDLXI. **Search for Higgsino pair production in pp collisions at root s=13 TeV in final states with large missing transverse momentum and two Higgs bosons decaying via $H \rightarrow b\bar{b}$**
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- CDLXII. **Azimuthal anisotropy of charged particles with transverse momentum up to 100GeV/c in PbPb collisions at root S-NN=5.02 TeV**
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- CDLXIII. **Brightness and uniformity measurements of plastic scintillator tiles at the CERN H2 test beam**
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- CDLXIV. **Search for resonant and nonresonant Higgs boson pair production in the $b\bar{b}\nu\bar{\nu}$ final state in proton-proton collisions at root s=13 TeV**
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- CDLXV. **Measurements of $t\bar{t}$ cross sections in association with b jets and inclusive jets and their ratio using dilepton final states in pp collisions at root s=13 TeV**
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- CDLXVI. **Search for supersymmetry in events with at least one photon, missing transverse momentum, and large transverse event activity in proton-proton collisions at root s=13TeV**

- Sirunyan A. M., Tumasyan A., Adam W., Ambrogi F., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroe J., et al.
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- CDLXVII. **Measurement of the differential cross sections for the associated production of a W boson and jets in proton-proton collisions at $\sqrt{s}=13$ TeV**
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- CDLXIX. **Search for new phenomena with the MT 2 variable in the all-hadronic final state produced in proton-proton collisions at $\sqrt{s}=13$ TeV**
Sirunyan A. M., Tumasyan A., Johnson A., Adam W., Ambrogi F., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., et al.
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- CDLXX. **Search for Supersymmetry in pp Collisions at $\sqrt{s}=13$ TeV in the Single-Lepton Final State Using the Sum of Masses of Large-Radius Jets**
Sirunyan A. M., Tumasyan A., Adam W., Ambrogi F., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Ero J., et al.
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- CDLXXI. **Search for physics beyond the standard model in events with two leptons of same sign, missing transverse momentum, and jets in proton-proton collisions at $\sqrt{s}=13$ TeV**
Sirunyan A. M., Tumasyan A., Adam W., Ambrogi F., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroe J., et al.
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- CDLXXII. **Search for Low Mass Vector Resonances Decaying to Quark-Antiquark Pairs in Proton-Proton Collisions at $\sqrt{s}=13$ TeV**
Sirunyan A. M., Tumasyan A., Adam W., Ambrogi F., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroe J., et al.
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- CDLXXIII. **Search for third-generation scalar leptoquarks and heavy right-handed neutrinos in final states with two tau leptons and two jets in proton-proton collisions at $\sqrt{s}=13$ TeV**
Sirunyan A. M., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroe J., Flechl M., et al.
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- CDLXXIV. **Search for supersymmetry in events with photons and missing transverse energy in pp collisions at 13 TeV**
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E., Dragicevic M., Eroe J., et al.
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.769, pp.391-412, 2017 (SCI-Expanded)
- CDLXXV. **Search for high-mass diphoton resonances in proton-proton collisions at 13 TeV and combination with 8 TeV search**
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Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.767, pp.147-170, 2017 (SCI-Expanded)
- CDLXXVI. **The CMS trigger system**
Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Asilar E., Bergauer T., Brandstetter J., Brondolin E.,

Dragicevic M., Eroe J., et al.

Journal of Instrumentation, vol.12, no.1, 2017 (SCI-Expanded)

DLXXVII. **Measurement of the properties of a Higgs boson in the four-lepton final state**

Chatrchyan S., Khachatryan V., Sirunyan A. M., Tumasyan A., Adam W., Bergauer T., Dragicevic M., Eroe J., Fabjan C., Friedl M., et al.

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Articles Published in Other Journals

- I. **Software Performance of the ATLAS Track Reconstruction for LHC Run 3**
Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Acharya B., et al.
Computing and Software for Big Science, vol.8, no.1, 2024 (Scopus)
- II. **Deep Generative Models for Fast Photon Shower Simulation in ATLAS**
Aad G., Abbott B., Abbott D., Abud A. A., Abeling K., Abhayasinghe D., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., et al.
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- III. **AtlFast3: The Next Generation of Fast Simulation in ATLAS**
Aad G., Abbott B., Abbott D., Abud A. A., Abeling K., Abhayasinghe D., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., et al.
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- IV. **Emulating the impact of additional proton-proton interactions in the ATLAS simulation by presampling sets of inelastic Monte Carlo events**
Aad G., Abbott B., Abbott D., Abud A. A., Abeling K., Abhayasinghe D., Abidi S., AbouZeid O., Abraham N., Abramowicz H., et al.
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- V. **Monitoring Akkuyu nuclear reactor using antineutrino flux measurement**
ÖZTÜRK S., ADIGÜZEL A., ÖZCAN V. E., Ünel N. G.
TURKISH JOURNAL OF PHYSICS, vol.41, no.1, pp.41-46, 2017 (ESCI)

Refereed Congress / Symposium Publications in Proceedings

- I. **KAHVE Laboratory Status and Plans**
Adıgüzel A.
Türk Fizik Derneği VIII. Uluslararası Katılımlı Parçacık Hızlandırıcıları ve Uygulamaları Kongres, Muğla, Turkey, 5 - 07 September 2022, pp.2
- II. **Permanent Magnet Microwave Discharge Ion Source & Its LEBT Line**
Açıksöz S., Çetinkaya H., Öz S., Adıgüzel A.
Türk Fizik Derneği 37. Uluslararası Fizik Konferansı, Muğla, Turkey, 1 - 05 September 2021, pp.146
- III. **Analysis Description Language & CutLang Interpreter for HEP**
Adıgüzel A., Göktürk B., Örgen B., Özcan V. E., Sekmen S., Şen B., Ünel N. G.
Türk Fizik Derneği 37. Uluslararası Fizik Konferansı, Muğla, Turkey, 1 - 05 December 2021, pp.131
- IV. **KAHVELab 800 MHz Radio Frequency Quadrupole (RFQ) Proton Accelerator Design, Simulation and Manufacturing Progress**
Adıgüzel A., Baran B., Çağlar A., Çelebi E., Çetinkaya H., Esen Ş., Karatay A., Kaya Ü., Koçer O., Öz S., et al.
Türk Fizik Derneği 37. Uluslararası Fizik Konferansı, Muğla, Turkey, 1 September - 05 December 2021, pp.136
- V. **LEBT Line Design, Construction and Results from Measurement Box at KAHVELab**
Halis D., Açıksöz S., Adıgüzel A., Çetinkaya H., Esen Ş., İlhan T. B., Kılıçgedik A., Oğuz S., Özbey A., Özcan V. E., et al.
Türk Fizik Derneği 37. Uluslararası Fizik Konferansı, Muğla, Turkey, 1 - 05 September 2021, pp.134

- VI. **Control Systems of DC Accelerators at KAHVELab**
İlhan T. B., Açiksöz S., Adıgüzel A., Er M. F., Öz S., Özcan V. E.
Türk Fizik Derneği 37. Uluslararası Fizik Konferansı, Bodrum, Türkiye, Muğla, Turkey, 1 - 05 September 2021, pp.148
- VII. **Space Charge Calculations for Low Beta Proton Beam and Its Effect on Emittance**
Esen Ş., Adıgüzel A., Çetinkaya H., Oğur S., Özcan V. E., Ünel N. G.
Türk Fizik Derneği 37. Uluslararası Fizik Konferansı, Muğla, Turkey, 1 September - 05 December 2021, pp.147
- VIII. **Proton Test Beam At KAHVE Laboratory and its Microwave Discharge Ion Source**
Adıgüzel A.
Türk Fizik Derneği 36. Uluslararası Fizik Konferansı, İstanbul, Turkey, 1 - 05 September 2020, pp.102
- IX. **Beam Diagnostics for Low Energy Proton Beam**
Adıgüzel A., Çetinkaya H., Özcan V. E., Özbey A.
Türk Fizik Derneği 36. Uluslararası Fizik Konferansı, İstanbul, Turkey, 1 - 05 September 2020, pp.103
- X. **UPGRADE OF THE 8 KEV MICROWAVE DISCHARGE ION SOURCE AT KAHVELAB**
Adıgüzel A., Çetinkaya H., Aşıcı C., Halis Taşdemir D., Hamparsunoğlu A., Özcan V. E., Ünel N. G., Öz S., Özbey A.
TÜRK FİZİK DERNEĞİ 35. ULUSLARARASI FİZİK KONFERANSI, Muğla, Turkey, 4 - 08 September 2019, pp.250
- XI. **Performance of the KAHVELab-farm and Computing Tests for Heavy Quark Search Software**
ADIGÜZEL A., Göktürk B., İştin S., Kaya Ü., Kırpıcı S. M., Özcan V. E., Ünel N. G., Sultansoy S.
TÜRK FİZİK DERNEĞİ 34. ULUSLARARASI FİZİK KONFERANSI, Muğla, Turkey, 5 - 09 September 2018, pp.344
- XII. **EXPERIMENTAL HIGH ENERGY PHYSICS SUMMER SCHOOL FOR HIGH SCHOOLS**
Kırpıcı S. M., ADIGÜZEL A., Gürbüz S., Özcan V. E.
TÜRK FİZİK DERNEĞİ 34. ULUSLARARASI FİZİK KONFERANSI, Muğla, Turkey, 5 September - 09 December 2018, pp.415
- XIII. **MONITORING AKKUYU NUCLEAR REACTOR USING ANTINEUTRINO FLUX MEASUREMENT**
Öztürk S., ADIGÜZEL A., Özcan V. E., Ünel N. G.
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- XIV. **Comparison 2016 data and simulation for the ATLAS Transition Radiation Tracker (TRT) tracking characteristics using the TRT xAOD**
ADIGÜZEL A.
TÜRK FİZİK DERNEĞİ 34. ULUSLARARASI FİZİK KONFERANSI, Muğla, Turkey, 5 - 09 September 2018, pp.331
- XV. **Design, Simulation And Construction Of A Delay Wire Chamber**
ADIGÜZEL A., ERGENLİK E.
TÜRK FİZİK DERNEĞİ 33. Uluslararası Fizik Kongresi, Muğla, Turkey, 5 - 10 September 2017, pp.1-4

Other Publications

- I. **Search for New Resonances**
Adıgüzel A.
Presentation, pp.1-7, 2020

Supported Projects

Adıgüzel A., Özcan V. E., TUBITAK Project, Mev Enerjili Elektron Hızlandırıcısı Tasarım Yazılımı, 2023 - 2026
Adıgüzel A., Çetin S. A., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, Data Taking, Data Analysis and Operation, Maintenance and Upgrade of Detector Systems at the CERN-ATLAS Experiment, 2020 - 2023
Özcan V. E., Adıgüzel A., Çetinkaya H., Ünel G., TUBITAK Project, Endüstriyel Uygulamalar İçin MeV Enerjili Elektron Hızlandırıcısı, 2021 - 2022
ADIGÜZEL A., AÇIKSÖZ S., YASUN Ş., ESEN Ş., KOÇER O., HALİS D., ÖZCAN V. E., ÜNEL N. G., ÇETİNKAYA H., ÖZ S., et al., Project Supported by Higher Education Institutions, Proton hızlandırıcısı için RF güç ölçer ve güvenlik kilidi tasarımı ve

üretimi, 2021 - 2022

Özcan V. E., Adıgüzel A., TUBITAK Project, UHF Bandında Kompakt Proton Hızlandırıcısı, 2019 - 2022

ADIGÜZEL A., AŞICI C., KOÇER O., ÜNEL N. G., TAŞDEMİR D., ÖZBEY A., HAMPARSUNOĞLU A., ÇETİNKAYA H., ÖZCAN V. E., Project Supported by Higher Education Institutions, Mikrodalga İyon Kaynağı ile Proton Demeti Üretimi Aktarımı ve Ölçümleri, 2019 - 2020

Adıgüzel A., Ünel N. G., Özcan V. E., Çetinkaya H., Özbey A., Aşıcı C., Koçer O., Hamparsunoğlu A., Halis Taşdemir D., Project Supported by Higher Education Institutions, The Production, Transfer and Measurements of Proton Beam via Microwave Ion Source, 2019 - 2020

ADIGÜZEL A., TUBITAK Project, Doğa Eğitimi ve Bilim Okulları, 2018 - 2018

Adıgüzel A., Çetin S. A., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, CERN-ATLAS Deneyinde 2016 Veri Alımı, Veri Analizi, TRT ve TDAQ Sistemleri Bakım ve İşletilmesi, 2016 - 2017

ADIGÜZEL A., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, CMS Deneyinde HKAL ın Yenileme İyileştirme Çalışmaları ve Fizik Analizleri, 2014 - 2017

ADIGÜZEL A., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, CMS Deneyinde Detektör Kurulumu Yenilenmesi ve Fizik Çalışmaları, 2009 - 2013

ADIGÜZEL A., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, CERN deki CMS Deneyinde Ağır İyon Çalışmalar, 2004 - 2008

Memberships / Tasks in Scientific Organizations

Feza Gürsey - Fizik ve Matematik Uygulama ve Araştırma Merkezi , Member, 2020 - Continues, Turkey

Türk Fizik Derneği, Board Member, 2019 - Continues

Avrupa Nükleer Araştırma Merkezi (CERN), Member, 2008 - Continues

Scientific Refereeing

TURKISH JOURNAL OF PHYSICS, National Scientific Refreed Journal, October 2020

American Institute of Physics (AIP), Other Indexed Journal, October 2018

Project Supported by Higher Education Institutions, March 2018

Canadian Journal of Physics, SCI Journal, November 2017

Tasks In Event Organizations

Adıgüzel A., Türk Fizik Derneği 36. Uluslararası Fizik Konferansı, Scientific Congress, İstanbul, Turkey, Eylül 2020

Adıgüzel A., 7th Internationally Participated Congress on Particle Accelerators and Applications, Scientific Congress, Muğla, Turkey, Eylül 2019

Metrics

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H-Index (WoS): 111

H-Index (Scopus): 114

Congress and Symposium Activities

International Conference on Neutrinos and Dark Matter (NDM-2020) , Invited Speaker, Al-Kharjah, Egypt, 2020
3rd International Turkey-Iran Joint Conference on LHC Physics, Attendee, İstanbul, Turkey, 2019
ATLAS Collaboration Week, Attendee, Geneve, Switzerland, 2019
ATLAS TRT Week, Invited Speaker, Geneve, Switzerland, 2019
Yüksek Enerji Fiziği, Astrofizik ve Kozmoloji Çalıştayı, Attendee, İstanbul, Turkey, 2019
Turkish Physical Society 34th International Physics Congress, Attendee, Muğla, Turkey, 2018
Yüksek Enerji Fiziği, Astrofizik ve Kozmoloji Çalıştayı, Attendee, Muğla, Turkey, 2018
Turkish Physical Society 33rd International Physics Congress, Attendee, Muğla, Turkey, 2017
Turkish Physical Society 32nd International Physics Congress, Attendee, Muğla, Turkey, 2016
Hızlandırıcı ve Algıç Fiziği Çalıştayı, Attendee, İstanbul, Turkey, 2016
İstanbul Üniversitesi Fen Fakültesi 6. Fizik Çalıştayı, Attendee, İstanbul, Turkey, 2016
9th International Physics Conference of the Balkan Physical Union, Attendee, İstanbul, Turkey, 2015
Beyond the Standard Model: Results with the 7 TeV LHC Collision Data, Attendee, Trieste, Italy, 2011
CMS Physics Week, Attendee, Muğla, Turkey, 2010
Using Physics Analysis Toolkit in CMS data analysis (CERN), Attendee, Geneve, Switzerland, 2009

Invited Talks

Search for New Resonances, Conference, International Conference on Neutrinos and Dark Matter (NDM-2020) , Egypt, January 2020

Awards

Adıgüzel A., 2015 Yılı Türk Fizik Derneği Prof. Dr. Şevket Erk Genç Bilim İnsanı Ödülü, Türk Fizik Derneği, August 2015