

Prof. İLKAY TÜRK ÇAKIR



Personal Information

Email: iturk@ankara.edu.tr

Other Email: ilkay.turk.cakir@cern.ch

Web: <https://avesis.ankara.edu.tr/itcakir>

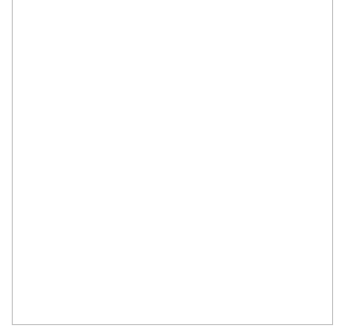
International Researcher IDs

ORCID: 0000-0002-0726-5648

Publons / Web Of Science ResearcherID: HNI-7509-2023

ScopusID: 56771589500

Yoksis Researcher ID: 135086



Research Areas

Experimental High Energy Physics Studies, Particle Accelerators, Particle Detectors and Calorimeters, Physics Analysis and Simulation Studies

Academic Titles / Tasks

Professor, Ankara University, Hızlandırıcı Teknolojileri Enstitüsü, Hızlandırıcı Teknolojileri Anabilim Dalı, 2023 - Continues

Professor, Giresun University, MÜHENDİSLİK FAKÜLTESİ, ENERJİ SİSTEMLERİ MÜHENDİSLİĞİ BÖLÜMÜ, 2016 - 2022

Associate Professor, Giresun University, MÜHENDİSLİK FAKÜLTESİ, ENERJİ SİSTEMLERİ MÜHENDİSLİĞİ BÖLÜMÜ, 2015 - 2017

Associate Professor, Istanbul Aydın University, Mühendislik Fakültesi, ELEKTRİK-ELEKTRONİK MÜHENDİSLİĞİ BÖLÜMÜ, 2014 - 2015

Research Assistant, Ankara University, Fen Fakültesi, Fizik Bölümü, 1995 - 2002

Academic and Administrative Experience

Chairperson of Department Quality Commission, Ankara University, Hızlandırıcı Teknolojileri Enstitüsü, Hızlandırıcı Teknolojileri Anabilim Dalı, 2024 - Continues

Member of the Senate, Ankara University, Hızlandırıcı Teknolojileri Enstitüsü, Hızlandırıcı Teknolojileri Anabilim Dalı, 2023 - Continues

Academic Performance D. Board Member, Ankara University, Hızlandırıcı Teknolojileri Enstitüsü, Hızlandırıcı Teknolojileri Anabilim Dalı, 2023 - Continues

Director of The Institution, Ankara University, 2023 - Continues

Deputy Director of Research Institute, Istanbul Aydın University, 2014 - 2015

Courses

Postgraduate

HADRON FİZİĞİ, Postgraduate, 2022 - 2023

DEMET FİZİĞİNE GİRİŞ, Postgraduate, 2022 - 2023

Undergraduate

INTRODUCTION TO STATISTICAL AND PROBABILITY , Undergraduate, 2023 - 2024

Jury Memberships

Post Graduate, Post Graduate, Giresun Üniversitesi, January, 2025

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, July, 2023

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Measurements of Lund subjet multiplicities in 13 TeV proton-proton 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.
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.859, 2024 (SCI-Expanded)
- II. **Interpretations of the ATLAS measurements of Higgs boson production and decay rates and differential cross-sections in pp collisions at $s = 13$ TeV**
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.11, 2024 (SCI-Expanded)
- III. **Observation of $t\bar{t}$ production in the lepton+jets and dilepton channels in p+Pb collisions at $s_{NN} = 8.16$ 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.11, 2024 (SCI-Expanded)
- IV. **Search for pair production of boosted Higgs bosons via vector-boson fusion in the $b\bar{b}b\bar{b}$ final state 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.
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.858, 2024 (SCI-Expanded)
- V. **Search for a resonance decaying into a scalar particle and a Higgs boson in the final state with two bottom quarks and two photons in proton-proton 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.
Journal of High Energy Physics, vol.2024, no.11, 2024 (SCI-Expanded)
- VI. **Search for Formula Presented-parity violating supersymmetric decays of the top squark to a Formula Presented-jet and a lepton in Formula Presented Formula Presented collisions with the ATLAS detector**
Filmer E., Gallagher J., Grant C., Green M., Jackson P., Kong A., Pandya H., Ruggeri T., Saha S., Ting E., et al.
Physical Review D, vol.110, no.9, 2024 (SCI-Expanded)
- VII. **Search for neutral long-lived particles that decay into displaced jets in the ATLAS calorimeter in association with leptons or jets using pp collisions at $s = 13$ TeV**
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.11, 2024 (SCI-Expanded)
- VIII. **Search for the Exclusive Formula Presented Boson Hadronic Decays Formula Presented, Formula Presented and Formula Presented 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.

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Physical Review Letters, vol.133, no.16, 2024 (SCI-Expanded)

- IX. **Search for Light Long-Lived Particles in Formula Presented Collisions at Formula Presented Using Displaced Vertices in the ATLAS Inner 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.16, 2024 (SCI-Expanded)
- X. **Combination and summary of ATLAS dark matter searches interpreted in a 2HDM with a pseudo-scalar mediator using 139 fb⁻¹ of s=13 TeV pp collision data**
Aad G., Abbott B., Abeling K., Abicht N., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Abusleme Hoffman A., et al.
Science Bulletin, vol.69, no.19, pp.3005-3035, 2024 (SCI-Expanded)
- XI. **Search for a new Z' gauge boson via the pp → W± (*) → z' μ± ν → μ ∓ μ μ± ν process in pp collisions at vs =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.
Physical Review D, vol.110, no.7, 2024 (SCI-Expanded)
- XII. **Measurement of single top-quark production in association with a Formula Presented boson in Formula Presented collisions at Formula Presented with the ATLAS detector**
Filmer E., Gallagher J., Grant C., Green M., Jackson P., Kong A., Pandya H., Ruggieri T., Saha S., Ting E., et al.
Physical Review D, vol.110, no.7, 2024 (SCI-Expanded)
- XIII. **Measurements of inclusive and differential cross-sections of tt̄γ production 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.
Journal of High Energy Physics, vol.2024, no.10, 2024 (SCI-Expanded)
- XIV. **Search for a resonance decaying into a scalar particle and a Higgs boson in final states with leptons and two photons 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.
Journal of High Energy Physics, vol.2024, no.10, 2024 (SCI-Expanded)
- XV. **Measurements of jet cross-section ratios in 13 TeV proton-proton collisions with ATLAS**
Filmer E., Grant C., Jackson P., Kong A., Pandya H., Potti H., Ruggieri T., Saha S., Ting E., White M., et al.
Physical Review D, vol.110, no.7, 2024 (SCI-Expanded)
- XVI. **Combination of Searches for Higgs Boson Pair Production in Formula Presented Collisions at Formula Presented 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, 2024 (SCI-Expanded)
- XVII. **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, 2024 (SCI-Expanded)
- XVIII. **Search for heavy Majorana neutrinos in e±e± and e±μ± 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)
- XIX. **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)

- XX. **Search for dark mesons decaying to top and bottom quarks 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.
Journal of High Energy Physics, vol.2024, no.9, 2024 (SCI-Expanded)
- XXI. **Search for pair-produced vectorlike quarks coupling to light quarks in the lepton plus jets final state using 13 TeV pp collisions with the ATLAS detector**
Aad G., Abbott B., Abbott D., Abed Abud A., Abeling K., Abhayasinghe D., Abidi S., AbouZeid O., Abraham N., Abramowicz H., et al.
Physical Review D, vol.110, no.5, 2024 (SCI-Expanded)
- XXII. **Search for decays of the Higgs boson into a pair of pseudoscalar particles decaying into Formula Presented using Formula Presented collisions at Formula Presented with the ATLAS detector**
Filmer E., Gallagher J., Grant C., Green M., Jackson P., Kong A., Pandya H., Ruggeri T., Saha S., Ting E., et al.
Physical Review D, vol.110, no.5, 2024 (SCI-Expanded)
- XXIII. **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)
- XXIV. **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)
- XXV. **Measurement of differential cross-sections in $t\bar{t}$ and $t\bar{t}$ +jets production in the lepton+jets final state in pp collisions at $s = 13$ TeV using 140 fb⁻¹ of ATLAS data**
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.8, 2024 (SCI-Expanded)
- XXVI. **Search for non-resonant Higgs boson pair production in final states with leptons, taus, and photons 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.
Journal of High Energy Physics, vol.2024, no.8, 2024 (SCI-Expanded)
- XXVII. **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)
- XXVIII. **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)
- XXIX. **Searches for exclusive Higgs boson decays into $D^*\gamma$ and Z boson decays into $D0\gamma$ and $K_s 0\gamma$ 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)

- XXX. **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)
- XXXI. **Measurement of ZZ production cross-sections in the four-lepton final state in pp collisions at $s=13.6\text{TeV}$ 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)
- XXXII. **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)
- XXXIII. **Combination of searches for Higgs boson decays into a photon and a massless dark photon 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.
Journal of High Energy Physics, vol.2024, no.8, 2024 (SCI-Expanded)
- XXXIV. **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)
- XXXV. **Statistical Combination of ATLAS Run 2 Searches for Charginos and Neutralinos 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.
Physical Review Letters, vol.133, no.3, 2024 (SCI-Expanded)
- XXXVI. **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)
- XXXVII. **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)
- XXXVIII. **Combination of searches for pair-produced leptoquarks at $s=13\text{ TeV}$ 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)
- XXXIX. **Search for charged-lepton-flavor violating $\mu\tau q$ interactions in top-quark production and decay in $p\bar{p}$ collisions at $\sqrt{s}=13\text{ TeV}$ 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)
- XL. **Measurement of t-channel single-top-quark production in pp collisions at $\sqrt{s}=5.02\text{ TeV}$ 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)
- XLI. **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., Abouhorma A., Abramowicz H., Abreu H., Abulaiti Y., Acharya B., et al.

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

- XLII. **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., Abouhorma A., Abramowicz H., et al.
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.854, 2024 (SCI-Expanded)
- XLIII. **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., Abouhorma 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)
- XLIV. **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., Abouhorma A., Abramowicz H., Abreu H., Abulaiti Y., Acharya B., et al.
Journal of High Energy Physics, vol.2024, no.7, 2024 (SCI-Expanded)
- XLV. **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)
- XLVI. **Combination of Searches for Resonant Higgs Boson Pair Production Using $p\bar{p}$ Collisions at $\sqrt{s}=13$ TeV with the ATLAS Detector**
Filmer E., Grant C., Jackson P., Kong A., Pandya H., Potti H., Ruggieri T., Ting E., White M., Gingrich D., et al.
Physical Review Letters, vol.132, no.23, 2024 (SCI-Expanded)
- XLVII. **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., Ruggieri T., Ting E., White M., Gingrich D., et al.
Physical Review D, vol.109, no.11, 2024 (SCI-Expanded)
- XLVIII. **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., Abouhorma A., Abramowicz H., et al.
Journal of Instrumentation, vol.19, no.6, 2024 (SCI-Expanded)
- XLIX. **Search for high-mass resonances in final states with a τ -lepton and missing transverse momentum with the ATLAS detector**
Jackson P., Kong A., Potti H., Ruggieri T., Sharma A., White M., Gingrich D., Lindon J., Nishu N., Pinfold J., et al.
Physical Review D, vol.109, no.11, 2024 (SCI-Expanded)
- L. **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., Abouhorma A., Abramowicz H., et al.
Journal of High Energy Physics, vol.2024, no.6, 2024 (SCI-Expanded)
- LI. **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., Ruggieri T., Ting E., White M., Gingrich D., Lindon J., Nishu N., et al.
Physical Review D, vol.109, no.11, 2024 (SCI-Expanded)
- LII. **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)
- LIII. **The ATLAS trigger system for LHC Run 3 and trigger performance in 2022**
Aad G., Abbott B., Abbott D., Abed Abud A., Abeling K., Abhayasinghe D., Abidi S., AbouZeid O., Abraham N., Abramowicz H., et al.
Journal of Instrumentation, vol.19, no.6, 2024 (SCI-Expanded)
- LIV. **Search for Nearly Mass-Degenerate Higgsinos Using Low-Momentum Mildly Displaced Tracks in pp Collisions at Formula Presented 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.132, no.22, 2024 (SCI-Expanded)
- LV. **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)
- LVI. **Measurement of the total and differential cross-sections of $t\bar{t}W$ production 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., Abusleme Hoffman A., et al.
Journal of High Energy Physics, vol.2024, no.5, 2024 (SCI-Expanded)
- LVII. **Search for electroweak production of supersymmetric particles in final states with two τ -leptons in $s = 13$ TeV pp collisions 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)
- LVIII. **Electron and photon efficiencies in LHC Run 2 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.
Journal of High Energy Physics, vol.2024, no.5, 2024 (SCI-Expanded)
- LIX. **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)
- LX. **ATLAS Run 2 searches for electroweak production of supersymmetric particles interpreted within the pMSSM**
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)
- LXI. **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)
- LXII. **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.
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- CI. Measurement of the cross-sections of the electroweak and total production of a $Z\gamma$ pair in association with two jets in pp collisions at $s=13$ TeV with the ATLAS detector**

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- CXXVII. **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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- CXXVIII. **Search for nonresonant pair production of Higgs bosons in the $\langle i \rangle b \langle /i \rangle (\langle i \rangle b \langle /i \rangle)$ over-bar $\langle i \rangle b \langle /i \rangle (\langle i \rangle b \langle /i \rangle)$ final state in $\langle i \rangle pp \langle /i \rangle$ collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**

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- CXXXIII. **Observation of gauge boson joint-polarisation states in $W^{\pm} Z$ production from $\langle i \rangle pp \langle /i \rangle$ collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**

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- CXXXIV. **Search for pair-production of vector-like quarks in pp collision events at $\sqrt{s}=13$ TeV with at least one leptonically decaying Z boson and a third-generation quark with the ATLAS detector**

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- CXXXV. **Measurement of the charge asymmetry in top-quark pair production in association with a photon with the ATLAS experiment**

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- CXXXVI. **Measurement of the Higgs boson mass in the $H \rightarrow ZZ^* \rightarrow 4\ell$ decay channel using 139 fb $^{-1}$ of $s=13$ TeV pp collisions recorded by the ATLAS detector at the LHC**

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- CL. **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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- CLV. **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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- CLXI. **Exclusive dielectron production in ultraperipheral Pb+Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV with ATLAS**
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- CLXIII. **Searches for lepton-flavour-violating decays of the Higgs boson into $e\tau$ and $\mu\tau$ in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector**
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- CLXV. **Combination of inclusive top-quark pair production cross-section measurements using ATLAS and CMS data at $\sqrt{s}=7$ and 8 TeV**
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- CLXVIII. **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**
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- CLXIX. **Measurement of single top-quark production in the s-channel in proton-proton collisions at $\sqrt{s} = 13$**

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- CLXX. **Measurements of $Z\gamma$ +jets differential cross sections in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector**
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- CLXXI. **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 $p s=13$ TeV with the ATLAS experiment**
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- CLXXII. **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**
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- CLXXIII. **Inclusive-photon production and its dependence on photon isolation in $\langle i \rangle pp \langle /i \rangle$ collisions at $\sqrt{s}=13$ TeV using 139 fb⁻¹ of ATLAS data**
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- CLXXV. **Search for dark matter produced in association with a single top quark and an energetic $\langle i \rangle W \langle /i \rangle$ boson in $\sqrt{\langle i \rangle s \langle /i \rangle}=13$ TeV $\langle i \rangle pp \langle /i \rangle$ collisions with the ATLAS detector**
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- CLXXVI. **Charged-hadron production in pp, p plus Pb, Pb plus Pb, and Xe plus Xe collisions at $\sqrt{s_{NN}}=5$ TeV with the ATLAS detector at the LHC**
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- CLXXVIII. **ATLAS flavour-tagging algorithms for the LHC Run 2 $\langle i \rangle pp \langle /i \rangle$ collision dataset**
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- CLXXIX. **Search for heavy, long-lived, charged particles with large ionisation energy loss in $\langle i \rangle pp \langle /i \rangle$ collisions at $\sqrt{s}=13$ TeV using the ATLAS experiment and the full Run 2 dataset**
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- CLXXX. **Search for supersymmetry in final states with missing transverse momentum and three or more b-jets in 139 fb⁻¹ of proton-proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
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- CLXXXI. **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**
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- CLXXXIII. **Measurement of the CP properties of Higgs boson interactions with τ -leptons with the ATLAS detector**
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- CLXXXV. **Search in diphoton and dielectron final states for displaced production of Higgs or Z bosons with the ATLAS detector in $p s=13$ TeV pp collisions**
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- CLXXXVI. **Inclusive and differential cross-sections for dilepton $t\bar{t}$ production measured in $\sqrt{s} = 13$ TeV 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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- CLXXXVII. **Model-independent search for the presence of new physics in events including $H \rightarrow \gamma\gamma$ with $\sqrt{s}=13$ TeV $\langle i \rangle pp \langle /i \rangle$ 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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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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- CLXXXIX. **Search for doubly charged Higgs boson production in multi-lepton final states using 139 fb⁻¹ of proton-proton collisions at $\sqrt{\langle i \rangle s \langle /i \rangle}=13$ TeV with the ATLAS detector**
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- CXC. **Determination of the strong coupling constant from transverse energy-energy correlations in**

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- CXCI. **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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- CXCII. **Search for flavour-changing neutral current interactions of the top quark and the Higgs boson in events with a pair of τ -leptons in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector**
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- CXCIII. **Searches for new phenomena in events with two leptons, jets, and missing transverse momentum in 139 fb⁻¹ of $\sqrt{s}=13$ TeV pp collisions with the ATLAS detector**
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- CXCIV. **Measurement of electroweak $Z(\nu\bar{\nu})\gamma\gamma$ production and limits on anomalous quartic gauge couplings in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector**
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- CXCV. **Search for direct pair production of sleptons and charginos decaying to two leptons and neutralinos with mass splittings near the W-boson mass in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector**
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- CXCVI. **Search for heavy resonances decaying into a Z or W boson and a Higgs boson in final states with leptons and b-jets in 139 fb⁻¹ of 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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- CXCVII. **Observation of four-top-quark production in the multilepton final state with the ATLAS detector**
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- CXCVIII. **Constraints on spin-0 dark matter mediators and invisible Higgs decays using ATLAS 13 TeV pp collision data with two top quarks and missing transverse momentum in the final state**
Aad G., Abbott B., Abbott D., Abeling K., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Hoffman A. C. A., et al.
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- CXCIX. **Search for Higgs boson pair production in association with a vector boson in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
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- CCI. **Measurement of the top-quark mass using a leptonic invariant mass in $\langle i \rangle pp \langle /i \rangle$ collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
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- CCII. **A search for new resonances in multiple final states with a high transverse momentum Z boson in $\sqrt{s} = 13$ TeV 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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- CCIII. **Cross-section measurements for the production of a Z boson in association with high-transverse-momentum jets 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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- CCIV. **Measurement of the $t\bar{t}$ production cross-section in pp collisions at $\sqrt{s} = 5.02$ TeV with the ATLAS detector**
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- CCV. **Search for light long-lived neutral particles that decay to collimated pairs of leptons or light hadrons in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
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- CCVI. **Measurements of observables sensitive to colour reconnection in $t(\bar{t})$ events with the ATLAS detector at $\sqrt{\langle i \rangle s \langle /i \rangle}=13$ TeV**
Aad G., Abbott B., Abbott D., Abeling K., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., Abulaiti Y., Hoffman A. C. A., et al.
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- CCVII. **Production of $Y(\langle i \rangle nS \langle /i \rangle)$ mesons in Pb plus Pb and $\langle i \rangle pp \langle /i \rangle$ collisions at 5.02 TeV**
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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- CCVIII. **Measurement of the nuclear modification factor of b-jets in 5.02 TeV Pb+Pb collisions 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.
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- CCIX. **Measurements of the suppression and correlations of dijets in Pb+Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV**
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- CCX. **Measurement of muon pairs produced via $\gamma\gamma$ scattering in nonultra-peripheral Pb plus Pb collisions at $\sqrt{\langle i \rangle s \langle /i \rangle}=5.02$ TeV with the ATLAS detector**
Aad G., Abbott B., Abbott D., Abdinov O., Abud A. A., Abeling K., Abhayasinghe D., Abidi S., AbouZeid O., Abraham N., et al.
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- CCXI. **Measurement of the total cross section and ρ -parameter from elastic scattering 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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CCXII. Measurement of substructure-dependent jet suppression in Pb plus Pb collisions at 5.02 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.

PHYSICAL REVIEW C, vol.107, no.5, 2023 (SCI-Expanded)

CCXIII. Measurement of the total and differential Higgs boson production cross-sections at $\sqrt{s} = 13$ TeV with the ATLAS detector by combining the $H \rightarrow ZZ^* \rightarrow 4\ell$ and $H \rightarrow \gamma\gamma$ decay channels

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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CCXIV. 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

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

Physical Review C, vol.107, no.5, 2023 (SCI-Expanded)

CCXV. Differential $\langle t \rangle$ ($\langle t \rangle$) over-tilde cross-section measurements using boosted top quarks in the all-hadronic final state with $139 \text{ fb} < \sup < i \rangle - < /i \rangle 1 < /sup >$ of ATLAS data

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.4, 2023 (SCI-Expanded)

CCXVI. Search for type-III seesaw heavy leptons in leptonic final states in $\langle i \rangle pp < /i \rangle$ collisions at $\sqrt{\langle i \rangle s < /i \rangle} = 13$ TeV with the ATLAS detector

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

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CCXVII. Measurement of the polarisation of single top quarks and antiquarks produced in the $\langle i \rangle t < /i \rangle$ -channel at $\sqrt{\langle i \rangle s < /i \rangle} = 13$ TeV and bounds on the $\langle i \rangle t W b < /i \rangle$ dipole operator from the ATLAS experiment

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.

JOURNAL OF HIGH ENERGY PHYSICS, vol.2022, no.11, 2022 (SCI-Expanded)

CCXVIII. Search for Higgs boson pair production in the two bottom quarks plus two photons final state in $\langle i \rangle pp < /i \rangle$ collisions at $\sqrt{\langle i \rangle s < /i \rangle} = 13$ TeV with the ATLAS detector

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

PHYSICAL REVIEW D, vol.106, no.5, 2022 (SCI-Expanded)

CCXIX. Observation of $\langle i \rangle WWW < /i \rangle$ Production in $\langle i \rangle pp < /i \rangle$ Collisions at $\sqrt{\langle i \rangle s < /i \rangle} = 13$ TeV with the ATLAS Detector

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

PHYSICAL REVIEW LETTERS, vol.129, no.6, 2022 (SCI-Expanded)

CCXX. Measurements of the Higgs boson inclusive and differential fiducial cross-sections in the diphoton decay channel with $\langle i \rangle pp < /i \rangle$ collisions at $\sqrt{\langle i \rangle s < /i \rangle} = 13$ 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.

JOURNAL OF HIGH ENERGY PHYSICS, vol.2022, no.8, 2022 (SCI-Expanded)

CCXXI. Measurements of jet observables sensitive to $\langle i \rangle b < /i \rangle$ -quark fragmentation in ($\langle i \rangle tt < /i \rangle$) over-bar events at the LHC with the ATLAS detector

- Aad G., Abbott B., Abbott D., Abed Abud A., Abeling K., Abhayasinghe D., Abidi S., Abouzeid O., Abraham N., Abramowicz H., et al.
PHYSICAL REVIEW D, vol.106, no.3, 2022 (SCI-Expanded)
- CCXXII. **Measurements of Higgs boson production cross-sections in the $H \rightarrow \tau^+ \tau^-$ decay channel in pp 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.
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- CCXXIII. **Search for events with a pair of displaced vertices from long-lived neutral particles decaying into hadronic jets in the ATLAS muon spectrometer in pp collisions at $\sqrt{s}=13$ TeV**
Aad G., Abbott B., Abbott D., Abed Abud A., Abeling K., Abhayasinghe D., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., et al.
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- CCXXIV. **Modelling and computational improvements to the simulation of single vector-boson plus jet processes for the ATLAS experiment**
Aad G., Abbott B., Abbott D., Abed Abud A., Abeling K., Abhayasinghe D., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., et al.
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- CCXXV. **Search for invisible Higgs-boson decays in events with vector-boson fusion signatures using 139 fb of proton-proton data recorded by the ATLAS experiment**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., Aboulhorma A., Abramowicz H., Abreu H., et al.
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- CCXXVI. **Study of $B_c \rightarrow J/\psi D_s$ and $B_c \rightarrow J/\psi D_s^* \rightarrow J/\psi D_s \mu^+ \mu^-$ decays 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., Aboulhorma A., Abramowicz H., Abreu H., et al.
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- CCXXVII. **A search for an unexpected asymmetry in the production of $e^+ \mu^-$ and $e^- \mu^+$ pairs in proton-proton collisions recorded by 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., Aboulhorma A., Abramowicz H., Abreu H., et al.
PHYSICS LETTERS B, vol.830, 2022 (SCI-Expanded)
- CCXXVIII. **Constraints on Higgs boson properties using $WW^*(\rightarrow e\nu)\mu jj$ production in 36.1 fb of $\sqrt{s}=13$ TeV pp collisions with the ATLAS detector**
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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- CCXXIX. **Search for long-lived charginos based on a disappearing-track signature using 136 fb of pp 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., Abramowicz H., Abreu H., Abulaiti Y., et al.
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- CCXXX. **Two-particle Bose-Einstein correlations in pp collisions at $\sqrt{s}=13$ TeV measured with the ATLAS detector at the LHC**
Aad G., Abbott B., Abbott D., Abed Abud A., Abeling K., Abhayasinghe D., Abidi S., AbouZeid O., Abraham N., Abramowicz H., et al.
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- CCXXXI. **Search for associated production of a Z boson with an invisibly decaying Higgs boson or dark matter**

candidates $\sqrt{s}=13$ 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.

PHYSICS LETTERS B, vol.829, 2022 (SCI-Expanded)

CCXXXII. Measurement of the nuclear modification factor for muons from charm and bottom hadrons in Pb plus Pb collisions at 5.02 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.

PHYSICS LETTERS B, vol.829, 2022 (SCI-Expanded)

CCXXXIII. Measurement of Higgs boson decay into $b\bar{b}$ -quarks in associated production with a top-quark pair in pp 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.

JOURNAL OF HIGH ENERGY PHYSICS, vol.2022, no.6, 2022 (SCI-Expanded)

CCXXXIV. Measurements of azimuthal anisotropies of jet production in Pb collisions at $\sqrt{s}=5.02$ 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 C, vol.105, no.6, 2022 (SCI-Expanded)

CCXXXV. Measurements of differential cross-sections in top-quark pair events with a high transverse momentum top quark and limits on beyond the Standard Model contributions to top-quark pair production 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., Aboulhorma A., Abramowicz H., Abreu H., et al.

JOURNAL OF HIGH ENERGY PHYSICS, vol.2022, no.6, 2022 (SCI-Expanded)

CCXXXVI. Constraints on Higgs boson production with large transverse momentum using $H \rightarrow b\bar{b}$ decays in 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.105, no.9, 2022 (SCI-Expanded)

CCXXXVII. Search for single production of a vectorlike T quark decaying into a Higgs boson and top quark with fully hadronic final states using 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.105, no.9, 2022 (SCI-Expanded)

:CCXXXVIII. Search for resonant pair production of Higgs bosons in the $b\bar{b}(b\bar{b})\bar{b}$ final state using pp 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., Abramowicz H., Abreu H., Abulaiti Y., et al.

PHYSICAL REVIEW D, vol.105, no.9, 2022 (SCI-Expanded)

CCXXXIX. Determination of the parton distribution functions of the proton using diverse ATLAS data from pp collisions at $\sqrt{s}=7, 8$ and 13 TeV

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

EUROPEAN PHYSICAL JOURNAL C, vol.82, no.5, 2022 (SCI-Expanded)

CCXL. Measurement of the energy asymmetry in $t\bar{t}$ production at 13 TeV with the ATLAS experiment and interpretation in the SMEFT framework

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

EUROPEAN PHYSICAL JOURNAL C, vol.82, no.4, 2022 (SCI-Expanded)

- CCXXLI. **Search for flavour-changing neutral-current interactions of a top quark and a gluon in pp 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.
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- CCXXLII. **Search for Higgs bosons decaying into new spin-0 or spin-1 particles in four-lepton final states with the ATLAS detector with 139 fb⁻¹ of pp collision data at $\sqrt{s}=13$ TeV**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., Aboulhorma A., Abramowicz H., Abreu H., et al.
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- CCXXLIII. **Search for new phenomena in three- or four-lepton events in pp 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., AbouZeid O., Abramowicz H., Abreu H., et al.
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.824, 2022 (SCI-Expanded)
- CCXXLIV. **Search for heavy particles in the b -tagged dijet mass distribution with additional b -tagged jets in proton-proton collisions at $p\sqrt{s}=13$ TeV with the ATLAS experiment**
Aad G., Abbott B., Abbott D., Abed Abud A., Abeling K., Abhayasinghe D., Abidi S., Abramowicz H., Abreu H., Abulaiti Y., et al.
PHYSICAL REVIEW D, vol.105, no.1, 2022 (SCI-Expanded)
- CCXXLV. **Search for Higgs boson decays into a pair of pseudoscalar particles in the $bb\mu\mu$ final state with the ATLAS detector in pp collisions at $\sqrt{s}=13$ TeV**
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.105, no.1, 2022 (SCI-Expanded)
- CCXXLVI. **Measurement of the c -jet mistagging efficiency in $t(\bar{t})$ events using pp collision data at $\sqrt{s}=13$ TeV collected with the ATLAS detector**
Aad G., Abbott B., Abbott D. C., Abud A. A., Abeling K., Abhayasinghe D. K., Abidi S. H., Aboulhorma A., Abramowicz H., Abreu H., et al.
EUROPEAN PHYSICAL JOURNAL C, vol.82, no.1, 2022 (SCI-Expanded)
- CCXXLVII. **Search for exotic decays of the Higgs boson into $b(\bar{b})$ and missing transverse momentum in pp 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., Abramowicz H., Abreu H., Abulaiti Y., et al.
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- CCXXLVIII. **Operation and performance of the ATLAS semiconductor tracker in LHC Run 2**
Aad G., Abbott B., Abbott D., Abud A. A., Abeling K., Abhayasinghe D., Abidi S., Aboulhorma A., Abramowicz H., Abreu H., et al.
JOURNAL OF INSTRUMENTATION, vol.17, no.1, 2022 (SCI-Expanded)
- CCXXLIX. **Search for Lepton-Flavor Violation in Z -Boson Decays with τ Leptons with the ATLAS Detector**
Aad G., Abbott B., Abbott D., Abed Abud A., Abeling K., Abhayasinghe D., Abidi S., Abramowicz H., Abreu H., Abulaiti Y., et al.
Physical Review Letters, vol.127, no.27, 2021 (SCI-Expanded)
- CCL. **Search for chargino-neutralino pair production in final states with three leptons and missing transverse momentum 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., Abramowicz H., Abreu H., et al.
EUROPEAN PHYSICAL JOURNAL C, vol.81, no.12, 2021 (SCI-Expanded)
- CCLI. **Configuration and performance of the ATLAS b -jet triggers in Run 2**
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- CCLIV. **Search for new phenomena in pp collisions in final states with tau leptons, b -jets, and missing transverse momentum with the ATLAS detector**
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- CCLXIV. **Search for bottom-squark pair production in pp collision events at $s = 13$ TeV with hadronically decaying τ -leptons, b -jets, and missing transverse momentum using the ATLAS detector**
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- CCLXIX. **Measurement of the relative B_c^\pm / B^\pm production cross section with the ATLAS detector at $s = 8$ TeV**
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Aad G., Abbott B., Abbott D., Abed Abud A., Abeling K., Abhayasinghe D., Abidi S., Abouzeid O., Abraham N., Abramowicz H., et al.
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- CCLXXIX. **Search for pair production of third-generation scalar leptoquarks decaying into a top quark and a τ -lepton in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector**
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- :CLXXXIII. **Search for a heavy Higgs boson decaying into a Z boson and another heavy Higgs boson in the $\ell\ell b\bar{b}$ and $\ell\ell WW$ final states in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector**
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- :CLXXXIV. **Search for new phenomena in final states with b-jets and missing transverse momentum in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector**
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Aad G., Abbott B., Abbott D., Abed Abud A., Abeling K., Abhayasinghe D., Abidi S., AbouZeid O., Abraham N., Abramowicz H., et al.
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- CCXCI. **Differential cross-section measurements for the electroweak production of dijets in association with a Z boson in proton–proton collisions at ATLAS**
Aad G., Abbott B., Abbott D., Abed Abud A., Abeling K., Abhayasinghe D., Abidi S., AbouZeid O., Abraham N., Abramowicz H., et al.
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- CCXCII. **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**
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- CCXCIII. **Medium-Induced Modification of Z-Tagged Charged Particle Yields in Pb plus Pb Collisions at 5.02**

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CCXCIV. **Search for dark matter in association with an energetic photon 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.

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CCXCV. **Measurement of the jet mass in high transverse momentum $Z(\rightarrow b\bar{b})\gamma$ production at s=13TeV using the ATLAS detector**

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

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CCXCVI. **A search for the dimuon decay of the Standard Model Higgs boson with the ATLAS detector**

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CCXCVII. **Measurement of hadronic event shapes in high-p T multijet final states at $\sqrt{s} = 13$ TeV with the ATLAS detector**

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CCXCVIII. **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**

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CCXCIX. **Performance of the upgraded PreProcessor of the ATLAS Level-1 Calorimeter Trigger**

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CCCI. **Search for new non-resonant phenomena in high-mass dilepton final states with the ATLAS detector**

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

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CCCII. **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**

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CCCIII. **Search for direct production of electroweakinos in final states with missing transverse momentum and a Higgs boson decaying into photons in pp 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., AbouZeid O., Abraham N., Abramowicz H., et al.

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- CCCIV. **Search for $t\bar{t}$ resonances in fully hadronic final states in pp 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., AbouZeid O., Abraham N., Abramowicz H., et al.
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- CCCV. **Search for pairs of scalar leptoquarks decaying into quarks and electrons or muons in $\sqrt{s} = 13$ TeV pp collisions with the ATLAS detector**
Aad G., Abbott B., Abbott D., Abed Abud A., Abeling K., Abhayasinghe D., Abidi S., AbouZeid O., Abraham N., Abramowicz H., et al.
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- CCCVI. **Operation of the ATLAS trigger system in Run 2**
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- CCCVIII. **Performance of the missing transverse momentum triggers for the ATLAS detector during Run-2 data taking**
Aad G., Abbott B., Abbott D., Abed Abud A., Abeling K., Abhayasinghe D., Abidi S., AbouZeid O., Abraham N., Abramowicz H., et al.
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- CCCIX. **Combination of the W boson polarization measurements in top quark decays using ATLAS and CMS data at $\sqrt{s} = 8$ TeV**
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- CCCX. **Search for the $HH \rightarrow b\bar{b} b\bar{b}$ process via vector-boson fusion production 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., AbouZeid O., Abraham N., Abramowicz H., et al.
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- CCCXI. **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**
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- CCCXIII. **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., Abed Abud A., Abeling K., Abhayasinghe D., Abidi S., AbouZeid O., Abraham N., Abramowicz H., et al.
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Aad G., Abbott B., Abbott D., Abed Abud A., Abeling K., Abhayasinghe D., Abidi S., AbouZeid O., Abraham N., Abramowicz H., et al.
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CCCLXIII. Measurement of the $t\bar{t}$ over-bar production cross section in the tau plus jets channel using the ATLAS detector

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CCCLXVI. Search for light top squark pair production in final states with leptons and b -jets with the ATLAS detector in $\sqrt{s}=7$ TeV proton-proton collisions

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CCCLXIX. Measurement of angular correlations in Drell-Yan lepton pairs to probe Z/γ^* boson transverse momentum at $\sqrt{s}=7$ TeV with the ATLAS detector

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PHYSICS LETTERS B, no.1-3, pp.32-51, 2013 (SCI-Expanded)

CCCLXX. Search for supersymmetry in events with photons, bottom quarks, and missing transverse momentum in proton-proton collisions at a centre-of-mass energy of 7 TeV with the ATLAS detector

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CCCLXXI. Search for long-lived, heavy particles in final states with a muon and multi-track displaced vertex in proton-proton collisions at $\sqrt{s}=7$ TeV with the ATLAS detector

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Aad G., Abajyan T., Abbott B., Abdallah J., Abdel Khalek S., Abdelalim A., Abdinov O., Aben R., Abi B., Abolins M., et al.
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Aad G., Abajyan T., Abbott B., Abdallah J., Abdel Khalek S., Abdelalim A., Abdinov O., Aben R., Abi B., Abolins M., et al.

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Aad G., Abajyan T., Abbott B., Abdallah J., Abdel Khalek S., Abdelalim A., Abdinov O., Aben R., Abi B., Abolins M., et al.
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- :CCLXXVI. **Search for the neutral Higgs bosons of the minimal supersymmetric standard model in pp collisions at $\sqrt{s}=7$ TeV with the ATLAS detector**
Aad G., Abajyan T., Abbott B., Abdallah J., Abdel Khalek S., Abdelalim A., Abdinov O., Aben R., Abi B., Abolins M., et al.
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- CCLXXVII. **ATLAS search for new phenomena in dijet mass and angular distributions using pp collisions at $\sqrt{s}=7$ TeV**
Aad G., Abajyan T., Abbott B., Abdallah J., Abdel Khalek S., Abdelalim A., Abdinov O., Aben R., Abi B., Abolins M., et al.
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- :CLXXVIII. **Search for direct production of charginos and neutralinos in events with three leptons and missing transverse momentum in $\sqrt{s}=7$ TeV pp collisions with the ATLAS detector**
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- CCLXXXII. **Characterisation and mitigation of beam-induced backgrounds observed in the ATLAS detector during the 2011 proton-proton run**
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- :CLXXXIII. **Search for pair production of heavy top-like quarks decaying to a high- p_T W boson and a b quark in the lepton plus jets final state at $\sqrt{s}=7$ TeV with the ATLAS detector**
Aad G., Abajyan T., Abbott B., Abdallah J., Abdel Khalek S., Abdelalim A., Abdinov O., Aben R., Abi B., Abolins M., et al.
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Memberships / Tasks in Scientific Organizations

FCC FUTURE CIRCULAR COLLIDER, Country Representative, 2020 - Continues, Turkey

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Scientific Consultations

CERN (Beam Line for Schools Competition), Other, Ankara University, Hızlandırıcı Teknolojileri Enstitüsü, Hızlandırıcı Teknolojileri Anabilim Dalı, Turkey, 2023 - 2023

Tasks In Event Organizations

Türk Çakır İ., FCC İş Birliği Çerçevesinde Ulusal Bilgi Paylaşımı Çalıştayı- II, Workshop Organization, Ankara, Turkey, Kasım 2024

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Congress and Symposium Activities

Uluslararası Mühendislik Bilimleri ve Multidisipliner Yaklaşımlar Kongresi, Invited Speaker, İstanbul, Turkey, 2024

Heavy Quarks and Top Subgroup Meeting, Invited Speaker, Geneve, Switzerland, 2023

Hızlandırıcı Teknolojileri Enstitüsü Seminerleri, Invited Speaker, Ankara, Turkey, 2023

International School on Physics & Allied Disciplines , Invited Speaker, Islamabad, Pakistan, 2023

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5. Uluslararası Mühendislik Bilimleri ve Multidisipliner Yaklaşımlar Kongresi, Invited Speaker, İstanbul, Turkey, 2023

Invited Talks

Heavy Quarks and Top Subgroup Meeting, Seminar, CERN, Switzerland, August 2023

ATLAS VLB Signal Validations for WBZb & ZBWt, Seminar, CERN, Turkey, July 2023

FCC (Future Circular Collider) and Introduction to Accelerators Physics, Workshop, International School on Physics & Allied Disciplines (ISPAD) , Pakistan, March 2023