

## **Prof. HATİCE YILDIZ**

### **Personal Information**

**Email:** hdyildiz@ankara.edu.tr

**Web:** <https://avesis.ankara.edu.tr/hdyildiz>

### **International Researcher IDs**

ScholarID: z0H8EycAAAAJ

ORCID: 0000-0003-3469-6045

Publons / Web Of Science ResearcherID: AAN-3727-2021

ScopusID: 18037406800

Yoksis Researcher ID: 121444

### **Education Information**

Doctorate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Fizik (Dr), Turkey 1998 - 2002

Postgraduate, The University of Toledo, Department Of Physics And Astronomy, United States Of America 1996 - 1998

Undergraduate, Ankara University, Fen Fakültesi, Fizik Bölümü, Turkey 1987 - 1991

### **Dissertations**

Doctorate, Observing higgs in weak boson fusion with forward jet tagging at the CERN CMS experiment, Middle East Technical University, Genel Biyoloji Anabilim Dalı, Fizik (Dr), 2002

Postgraduate, Some Unstudied Decay Modes of the Tau Lepton, CLEO II Dedector and It'xxs Properties, The University of Toledo, Department Of Physics And Astronomy, 1998

### **Research Areas**

Natural Sciences

### **Academic Titles / Tasks**

Associate Professor, Kütahya Dumlupınar University, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2010 - 2011

Assistant Professor, Kütahya Dumlupınar University, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2003 - 2010

### **Academic and Administrative Experience**

Head of Department, Ankara University, Hızlandırıcı Teknolojileri Enstitüsü, Hızlandırıcı Teknolojileri Anabilim Dalı, 2019

- Continues

Ankara University, 2012 - Continues

Director of The Institution, Ankara University, Hızlandırıcı Teknolojileri Enstitüsü, Hızlandırıcı Teknolojileri Anabilim Dalı, 2021 - 2022

Kütahya Dumlupınar University, 2011 - 2011

Kütahya Dumlupınar University, 2011 - 2011  
Kütahya Dumlupınar University, 2011 - 2011  
Kütahya Dumlupınar University, 2011 - 2011  
Kütahya Dumlupınar University, 2010 - 2011

## Courses

Hızlandırıcılarda Radyo Frekans Yapıları, Postgraduate, 2022 - 2023  
Demet Fiziğine Giriş, Postgraduate, 2022 - 2023  
İşnim Kaynaklarına Giriş, Postgraduate, 2022 - 2023  
Tez Çalışması, Postgraduate, 2022 - 2023  
Uzmanlık Alan Dersi, Postgraduate, 2022 - 2023  
Seminer, Postgraduate, 2022 - 2023  
Hızlandırıcı Fiziğine Giriş, Postgraduate, 2022 - 2023  
Uzmanlık Alan Dersi, Doctorate, 2016 - 2017, 2015 - 2016  
ELEKTROMAGNETİK TEORİ I, Postgraduate, 2014 - 2015  
ELEKTROMAGNETİK TEORİ I, Undergraduate, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006, 2004 - 2005, 2003 - 2004  
YÜKSEK ENERJİ FİZİĞİ, Postgraduate, 2014 - 2015, 2012 - 2013  
UZMANLIK ALAN DERSİ, Undergraduate, 2010 - 2011  
FİZİKTE ARAŞTIRMA TEKNİKLERİ, Undergraduate, 2010 - 2011, 2009 - 2010, 2008 - 2009  
GENEL FİZİK II, Undergraduate, 2010 - 2011, 2009 - 2010  
ELEKTROMAGNETİK TEORİ II, Undergraduate, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006, 2004 - 2005, 2003 - 2004  
İLERİ DENEYSEL YÜKSEK ENERJİ FİZİĞİ, Postgraduate, 2010 - 2011  
YÜKSEK ENERJİ FİZİĞİ UYGULAMALARI, Postgraduate, 2010 - 2011  
İLERİ MATEMATİKSEL FİZİK, Postgraduate, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006, 2004 - 2005  
YÜKSEK ENERJİ FİZİĞİ UYGULAMALARI, Undergraduate, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006, 2004 - 2005  
GENEL FİZİK I, Undergraduate, 2009 - 2010  
YÜKSEK ENERJİ FİZİĞİ-SEMİNER, Undergraduate, 2008 - 2009  
DENEYSEL YÜKSEK ENERJİ FİZİĞİ, Undergraduate, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006  
DİFERANSİYEL DENKLEMLER II, Undergraduate, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006, 2004 - 2005  
DİFERANSİYEL DENKLEMLER I, Undergraduate, 2007 - 2008, 2006 - 2007, 2005 - 2006, 2004 - 2005, 2003 - 2004  
Kuantum Fiziği II, Undergraduate, 2004 - 2005  
TEMEL FİZİK II, Undergraduate, 2003 - 2004  
İLERİ MATEMATİKSEL FİZİK I, Postgraduate, 2003 - 2004  
Mekanik Laboratuvarı, Undergraduate, 2002 - 2003  
Temel Fizik Laboratuvarı, Undergraduate, 2001 - 2002  
Modern Fizik, Undergraduate, 2000 - 2001

## Advising Theses

YILDIZ H., Serbest Elektron Hızlandırıcılarında Demet Hattı Tasarımı ve Demet Dinamiği, Doctorate, D.PORSUK(Student), 2020  
YILDIZ H., Süper iletken ve normal iletken hızlandırıcılarda kavite dizaynı ve hızlandırıcı sistemlerin modellenmesi, Postgraduate, D.PORSUK(Student), 2015  
YILDIZ H., Kendiliğinden genlik artırılmış lazer sisteminde elektron tabancası ve süper iletken hızlandırıcı yapılarının

modellenmesi, Postgraduate, A.BAT(Student), 2012

YILDIZ H., Kızılıtesi bölgede serbest elektron lazeri üretiminin tam modellemesi, Postgraduate, M.AYDAR(Student), 2011

YILDIZ H., Dördüncü aile kuarklarının anormal rezonans üretimleri, Postgraduate, M.YILMAZ(Student), 2010

YILDIZ H., Türk Hızlandırıcı Merkezi (THM) serbest elektron lazeri optik kavite parametrelerinin belirlenmesi ve hesaplanması, Postgraduate, H.YILMAZ(Student), 2010

YILDIZ H., LHC-ATLAS deneyinde Dördüncü Aile Kuarklarının incelenmesi, Postgraduate, Y.ZEKA(Student), 2009

YILDIZ H., Dördüncü standart model ailesi fermiyonlarının üretimi ve modelleme çalışmaları, Postgraduate, G.KİBAR(Student), 2008

YILDIZ H., CERN-LHC'deki deneylerde yüksek enerji fizigi modelleme çalışmaları, Postgraduate, V.ÇETİNKAYA(Student), 2007

YILDIZ H., Yüksek enerji fizigi simülasyonlarında Monte Carlo teknik ve uygulamaları, Postgraduate, İ.SIDIR(Student), 2006

## Published journal articles indexed by SCI, SSCI, and AHCI

### I. Search for long-lived, massive particles in events with displaced vertices and multiple 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.

JOURNAL OF HIGH ENERGY PHYSICS, vol.2023, no.6, 2023 (SCI-Expanded)

### II. Search for type-III seesaw heavy leptons in leptonic final states in $\langle i \rangle pp \langle /i \rangle$ collisions at $\sqrt{\langle i \rangle s \langle /i \rangle} = 13$ 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.

EUROPEAN PHYSICAL JOURNAL C, vol.82, no.11, 2022 (SCI-Expanded)

### III. Measurement of the polarisation of single top quarks and antiquarks produced in the $\langle i \rangle t \langle /i \rangle$ -channel at $\sqrt{\langle i \rangle s \langle /i \rangle} = 13$ TeV and bounds on the $\langle i \rangle tWb \langle /i \rangle$ 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)

### IV. Search for Higgs boson pair production in the two bottom quarks plus two photons final state in $\langle i \rangle pp \langle /i \rangle$ collisions at $\sqrt{\langle i \rangle s \langle /i \rangle} = 13$ 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)

### V. Observation of $\langle i \rangle WWW \langle /i \rangle$ Production in $\langle i \rangle pp \langle /i \rangle$ Collisions at $\sqrt{\langle i \rangle s \langle /i \rangle} = 13$ 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)

### VI. Search for events with a pair of displaced vertices from long-lived neutral particles decaying into hadronic jets in the ATLAS muon spectrometer in $\langle i \rangle pp \langle /i \rangle$ collisions at $\sqrt{\langle i \rangle s \langle /i \rangle} = 13$ 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.106, no.3, 2022 (SCI-Expanded)

### VII. Study of $B_{c \rightarrow D^* \psi}$ and $B_{c \rightarrow D^* \psi}^*$ 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.  
JOURNAL OF HIGH ENERGY PHYSICS, vol.2022, no.8, 2022 (SCI-Expanded)
- VIII. **Direct constraint on the Higgs-charm coupling from a search for Higgs boson decays into charm quarks with the ATLAS detector**  
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.8, 2022 (SCI-Expanded)
- IX. **Search for invisible Higgs-boson decays in events with vector-boson fusion signatures using 139 fb<sup>-1</sup> 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.  
JOURNAL OF HIGH ENERGY PHYSICS, vol.2022, no.8, 2022 (SCI-Expanded)
- X. **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.  
JOURNAL OF HIGH ENERGY PHYSICS, vol.2022, no.8, 2022 (SCI-Expanded)
- XI. **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.  
JOURNAL OF HIGH ENERGY PHYSICS, vol.2022, no.8, 2022 (SCI-Expanded)
- XII. **Measurements of the Higgs boson inclusive and differential fiducial cross-sections in the diphoton decay channel with  $< i>pp</i>$  collisions at  $\sqrt{< i>s</i>}=13$  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)
- XIII. **A search for an unexpected asymmetry in the production of  $e^+ e^-$  and  $\mu^+ \mu^-$  pairs in proton-proton collisions recorded by the ATLAS detector at  $\sqrt{< i>s</i>}=13$  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)
- XIV. **Search for long-lived charginos based on a disappearing-track signature using 136 fb<sup>-1</sup> of  $< i>pp</i>$  collisions at  $\sqrt{< i>s</i>}=13$  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.  
EUROPEAN PHYSICAL JOURNAL C, vol.82, no.7, 2022 (SCI-Expanded)
- XV. **Two-particle Bose-Einstein correlations in  $< i>pp</i>$  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.  
EUROPEAN PHYSICAL JOURNAL C, vol.82, no.7, 2022 (SCI-Expanded)
- XVI. **Constraints on Higgs boson properties using  $< i>WW</i>^*(\rightarrow e^+e^-/\nu\mu\nu) < i>jj</i>$  production in 36.1 fb<sup>-1</sup> of  $\sqrt{< i>s</i>}=13$  TeV  $< i>pp</i>$  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.  
EUROPEAN PHYSICAL JOURNAL C, vol.82, no.7, 2022 (SCI-Expanded)
- XVII. **Measurement of the nuclear modification factor for muons from charm and bottom hadrons in Pb + 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)
- XVIII. **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)
- XIX. **Search for neutral long-lived particles in  $\text{pp}$  collisions at  $\sqrt{s} = 13$  TeV that decay into displaced hadronic jets in the ATLAS calorimeter**  
 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)
- XX. **Measurement of Higgs boson decay into  $b$ -quarks in associated production with a top-quark pair in  $\text{pp}$  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)
- XXI. **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)
- XXII. **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)
- XXIII. **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)
- XXIV. **Constraints on Higgs boson production with large transverse momentum using  $H \rightarrow b\bar{b}$  over-bar 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)
- XXV. **Search for resonant pair production of Higgs bosons in the  $b\bar{b}$  over-bar final state using  $\text{pp}$  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)
- XXVI. **Measurement of the energy asymmetry in  $t(t)\bar{t}$  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)
- XXVII. **Search for flavour-changing neutral-current interactions of a top quark and a gluon in  $\text{pp}$  collisions at  $\sqrt{s}=13$  TeV with the ATLAS detector**

- Aad G., Abbott B., Abbott D., Abud Abud 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)
- XXVIII. The ATLAS inner detector trigger performance in pp collisions at 13 TeV during LHC Run 2**  
 Aad G., Abbott B., Abbott D., Abud A. A., Abeling K., Abhayasinghe D., Abidi S., AbouZeid O., Abraham N., Abramowicz H., et al.  
 EUROPEAN PHYSICAL JOURNAL C, vol.82, no.3, 2022 (SCI-Expanded)
- XXIX. Measurement of the energy response of the ATLAS calorimeter to charged pions from  $\langle i>W</i>$   $\langle SUP>\pm</SUP> \rightarrow \tau\langle SUP>\pm</SUP> (\rightarrow \pi\langle SUP>\pm</SUP> v<sub>\tau</sub>) v<sub>\tau</sub> events in Run 2 data$**   
 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.3, 2022 (SCI-Expanded)
- XXX. Search for Higgs bosons decaying into new spin-0 or spin-1 particles in four-lepton final states with the ATLAS detector with  $139 \text{ fb}^{-1}$  of  $\langle i>pp</i>$  collision data at  $\sqrt{s}=13 \text{ TeV}$**   
 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.3, 2022 (SCI-Expanded)
- XXXI. Observation of electroweak production of two jets in association with an isolated photon and missing transverse momentum, and search for a Higgs boson decaying into invisible particles at 13 TeV with the ATLAS detector**  
 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.2, 2022 (SCI-Expanded)
- XXXII. Search for heavy particles in the b-tagged dijet mass distribution with additional b-tagged jets in proton-proton collisions at  $p\sqrt{s}=13 \text{ TeV}$  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)
- XXXIII. Search for exotic decays of the Higgs boson into  $\langle i>b</i>(\langle i>b</i>)\overline{b}$  and missing transverse momentum in  $\langle i>pp</i>$  collisions at  $\sqrt{s}=13 \text{ TeV}$  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.  
 JOURNAL OF HIGH ENERGY PHYSICS, vol.2022, no.1, 2022 (SCI-Expanded)
- XXXIV. Search for Higgs boson decays into a pair of pseudoscalar particles in the  $\langle i>bb</i>\mu\mu$  final state with the ATLAS detector in  $\langle i>pp</i>$  collisions at  $\sqrt{s}=13 \text{ TeV}$**   
 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)
- XXXV. Measurement of the  $\langle i>c</i>$ -jet mistagging efficiency in  $\langle i>t</i>(\langle i>t</i>)\overline{t}$  events using  $\langle i>pp</i>$  collision data at  $\sqrt{s}=13 \text{ TeV}$  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)
- XXXVI. Studies of the performance of the ATLAS detector using cosmic-ray muons**  
 Aad G., Abbott B., Abdallah J., Abdelalim A., Abdesselam A., Abdinov O., Abi B., Abolins M., Abramowicz H., Abreu H., et al.  
 European Physical Journal C, vol.71, no.3, pp.1-36, 2011 (SCI-Expanded)
- XXXVII. Search for diphoton events with large missing transverse energy with 36 pb<sup>-1</sup> of 7 TeV proton-proton collision data with the ATLAS detector**

- Aad G., Abbott B., Abdallah J., Abdelalim A., Abdesselam A., Abdinov O., Abi B., Abolins M., Abramowicz H., Abreu H., et al.  
European Physical Journal C, vol.71, no.10, 2011 (SCI-Expanded)
- XXXVIII. Measurement of multi-jet cross sections in proton-proton collisions at a 7 TeV center-of-mass energy**  
Aad G., Abbott B., Abdallah J., Abdelalim A., Abdesselam A., Abdinov O., Abi B., Abolins M., Abramowicz H., Abreu H., et al.  
European Physical Journal C, vol.71, no.11, pp.1-27, 2011 (SCI-Expanded)
- XXXIX. Measurement of the Y(1S) production cross-section in pp collisions at s=7 TeV in ATLAS**  
Aad G., Abbott B., Abdallah J., Abdelalim A., Abdesselam A., Abdinov O., Abi B., Abolins M., Abramowicz H., Abreu H., et al.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.705, no.1-2, pp.9-27, 2011 (SCI-Expanded)
- XL. Performance of the ATLAS detector using first collision data**  
Aad G., Abat E., Abbott B., Abdallah J., Abdelalim A., Abdesselam A., Abdinov O., Abi B., Abolins M., Abramowicz H., et al.  
Journal of High Energy Physics, vol.2010, no.9, 2010 (SCI-Expanded)
- XLI. Commissioning of the ATLAS Muon Spectrometer with cosmic rays**  
The ATLAS Collaboration A., Aad G., Abbott B., Abdallah J., Abdelalim A., Abdesselam A., Abdinov O., Abi B., Abolins M., Abramowicz H., et al.  
European Physical Journal C, vol.70, no.3, pp.875-916, 2010 (SCI-Expanded)
- XLII. The ATLAS Inner Detector commissioning and calibration**  
The ATLAS Collaboration A., Aad G., Abbott B., Abdallah J., Abdelalim A., Abdesselam A., Abdinov O., Abi B., Abolins M., Abramowicz H., et al.  
European Physical Journal C, vol.70, no.3, pp.787-821, 2010 (SCI-Expanded)
- XLIII. Readiness of the ATLAS Tile Calorimeter for LHC collisions**  
Aad G., Abbott B., Abdallah J., Abdelalim A., Abdesselam A., Abdinov O., Abi B., Abolins M., Abramowicz H., Abreu H., et al.  
European Physical Journal C, vol.70, no.4, pp.1193-1236, 2010 (SCI-Expanded)
- XLIV. Readiness of the ATLAS liquid argon calorimeter for LHC collisions**  
The ATLAS Collaboration A., Aad G., Abbott B., Abdallah J., Abdelalim A., Abdesselam A., Abdinov O., Abi B., Abolins M., Abramowicz H., et al.  
European Physical Journal C, vol.70, no.3, pp.723-753, 2010 (SCI-Expanded)
- XLV. Drift Time Measurement in the ATLAS Liquid Argon Electromagnetic Calorimeter using Cosmic Muons**  
The ATLAS Collaboration A., Aad G., Abbott B., Abdallah J., Abdelalim A., Abdesselam A., Abdinov O., Abi B., Abolins M., Abramowicz H., et al.  
European Physical Journal C, vol.70, no.3, pp.755-785, 2010 (SCI-Expanded)
- XLVI. Search for new particles in two-jet final states in 7 TeV proton-proton collisions with the ATLAS detector at the LHC**  
Aad G., Abbott B., Abdallah J., Abdelalim A., Abdesselam A., Abdinov O., Abi B., Abolins M., Abramowicz H., Abreu H., et al.  
Physical Review Letters, vol.105, no.16, 2010 (SCI-Expanded)
- XLVII. Charged-particle multiplicities in pp interactions at  $\sqrt{s} = 900$  GeV measured with the ATLAS detector at the LHC**  
Aad G., Abat E., Abbott B., Abdallah J., Abdelalim A., Abdesselam A., Abdinov O., Abi B., Abolins M., Abramowicz H., et al.  
Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, vol.688, no.1, pp.21-42, 2010 (SCI-Expanded)
- XLVIII. The ATLAS Simulation Infrastructure**  
The ATLAS Collaboration A., Aad G., Abbott B., Abdallah J., Abdelalim A., Abdesselam A., Abdinov O., Abi B., Abolins

- M., Abramowicz H., et al.  
European Physical Journal C, vol.70, no.3, pp.823-874, 2010 (SCI-Expanded)
- XLIX. Anomalous resonant production of the fourth-family up-type quarks at the LHC**  
Çakir I., YILDIZ H., Çakir O., Ünel G.  
Physical Review D - Particles, Fields, Gravitation and Cosmology, vol.80, no.9, 2009 (SCI-Expanded)
- L. Single production of fourth-family quarks at the LHC**  
Cakir O., Cakir I. T., Yildiz H., Mehdiev R.  
European Physical Journal C, vol.56, no.4, pp.537-543, 2008 (SCI-Expanded)
- LI. Anomalous single production of the fourth generation charged leptons at future ep colliders**  
Ciftci A. K., ÇİFTÇİ R., Yıldız H., Sultansoy S.  
Modern Physics Letters A, vol.23, no.14, pp.1047-1054, 2008 (SCI-Expanded)
- LII. The ATLAS experiment at the CERN large hadron collider**  
Aad G., Abat E., Abdallah J., Abdelalim A., Abdesselam A., Abdinov O., Abi B., Abolins M., Abramowicz H., Acerbi E., et al.  
Journal of Instrumentation, vol.3, no.8, 2008 (SCI-Expanded)
- LIII. Summary of the CMS potential for the Higgs boson discovery**  
Abdullin S., Banerjee S., Bellucci L., Charlot C., Denegri D., Dittmar M., Drolling V., Dubinin M., Dzelalija M., Green D., et al.  
European Physical Journal C, vol.39, no.SUPPL. 2, 2005 (SCI-Expanded)
- LIV. Observing high mass higgs using pp → qqH at CERN CMS experiment**  
YILDIZ H.  
CZECHOSLOVAK JOURNAL OF PHYSICS, vol.54, 2004 (SCI-Expanded)
- LV. Study of high mass Higgs using pp → qqH**  
YILDIZ H., Zeyrek M.  
ACTA PHYSICA POLONICA B, vol.34, no.8, pp.4001-4017, 2003 (SCI-Expanded)

## Books & Book Chapters

- I. Nükleer Kararsızlık**  
ALĞIN E., REYHANCAN İ. A., AYDIN A., KAPLAN A., BOZKURT A., ÇAKIR M. A., KARA A., KAYIŞ TOPAKSU A., DEMİR B., TEL E., et al.  
in: NÜKLEER FİZİK - İlkeler ve Uygulamalar, Abdullah Aydin, İsmail Hakkı Sarpün, Eyyup Tel, Abdullah Kaplan, Editor, Nobel Akademik Yayıncılık, Ankara, pp.65-91, 2018
- II. Detektörler ve Cihazlar**  
YALÇIN S., KARA A., ARI V., AYTEKİN H., SELVİ S., KAYIŞ TOPAKSU A., ALĞIN E., REYHANCAN İ. A., GÜRLER O., GÜMÜŞ H., et al.  
in: Nükleer Fizik-İlkeler ve Uygulamalar, ABDULLAH AYDIN, İSMAİL HAKKI SARPÜN, EYYUP TEL, ABDULLAH KAPLAN, Editor, Nobel Akademik Yayıncılık, Ankara, pp.151-180, 2018
- III. Bilim Uygulamaları 5. Sınıf**  
YILDIZ H.  
MİLLÎ EĞİTİM BAKANLIĞI YAYINLARI, Ankara, 2017
- IV. Bilim Uygulamaları 6. Sınıf**  
YILDIZ H., AYDINLI R., Ege M., Karaca i., Arslan A., CANLI S., ÖZTÜRK S.  
MİLLÎ EĞİTİM BAKANLIĞI YAYINLARI, Ankara, 2017

## Refereed Congress / Symposium Publications in Proceedings

- I. CERN-ATLAS EXPERIMENT STUDIES AND ADCoS SHIFT DUTIES ON DATA DISTRIBUTION AT INSTITUTE OF ACCELERATOR TECHNOLOGIES**

- YILDIZ H.  
BSW2019 (Eighth Bozok Science Workshop), Yozgat, Turkey, 7 - 09 August 2019
- II. **Dump of the Beam at Linear Accelerators**  
YILDIZ H.  
Seventh Bozok Science Workshop Boron and Boron Containing Nanomaterials with Applications, Yozgat, Turkey, 8 - 10 August 2018
- III. **Türkiye'de Temel Bilimlerde Kadının Yeri, CERN ATLAS Deneyindeki Çalışmalarımız ve Bunun Ülkemize Yansımaları**  
YILDIZ H.  
Anadolu Kadınları (Bâcîyân-ı Rûm) Teşkilatı Sempozyumu -2018, Balıkesir, Turkey, 21 - 23 February 2018
- IV. **High Energy Accelerator Studies in Turkey**  
YILDIZ H.  
Sixth Bozok Science Workshop: Studies from Nuclei to Nanomaterials with Applications, Yozgat, Turkey, 23 - 25 August 2017
- V. **Output laser parameters at linear accelerators**  
YILDIZ H.  
3rd International Conference on Theoretical and Experimental Studies in Nuclear Applications and Technology, Adana, Turkey, 10 - 12 May 2017
- VI. **RF power supply and RF transmission line at linear accelerators**  
YILDIZ H., Porsuk D.  
3rd International Conference on Theoretical and Experimental Studies in Nuclear Applications and Technology, Adana, Turkey, 10 - 12 May 2017
- VII. **High Energy Electron Beam Production**  
YILDIZ H., Porsuk D.  
3rd International Conference on Theoretical and Experimental Studies in Nuclear Applications and Technology, Adana, Turkey, 10 - 12 May 2017
- VIII. **GeV energy laser vacuum system and components**  
YILDIZ H., YILDIZ İ.  
3rd International Conference on Theoretical and Experimental Studies in Nuclear Applications and Technology, Adana, Turkey, 10 - 12 May 2017
- IX. **LINEAR ACCELERATING SYSTEM CAVITY AND FIELD DEFECTS**  
YILDIZ H., PORSUK D.  
Turkish Physical Society 32nd International Physics Congress, Muğla, Turkey, 6 - 09 September 2016
- X. **ELECTRON BEAM ACCELERATING SYSTEMS DESIGN**  
YILDIZ H., PORSUK D.  
Turkish Physical Society 32nd International Physics Congress, Muğla, Turkey, 6 - 09 September 2016
- XI. **DESIGN STUDIES OF TAC SASE - FEL PROJECT**  
YILDIZ H.  
6th Internationally Participated Congress on Particle Accelerators and Applications, Muğla, Turkey, 29 - 30 August 2016
- XII. **Nanometer Wavelength Free Electron Laser Optimisation**  
YILDIZ H.  
12th International Nanoscience and Nanotechnology Conference, Kocaeli, Turkey, 3 - 05 June 2016
- XIII. **Special Vacuum Conditions of Linear Accelerator Systems**  
YILDIZ H., YILDIZ İ.  
TESNAT 2016 - International Conference on Theoretical and Experimental Studies in Nuclear Applications and Technology, Hatay, Turkey, 28 - 30 April 2016
- XIV. **High-Efficiency Linear Acceleration of the Electron Beam**  
YILDIZ H., PORSUK D.  
TESNAT 2016 - International Conference on Theoretical and Experimental Studies in Nuclear Applications and Technology, Hatay, Turkey, 28 - 30 April 2016

- XV. **Simulation and Design Studies of EM Field Distribution in the Superconducting Cavity-Cells**  
YILDIZ H., PORSUK D.  
TESNAT 2016 - International Conference on Theoretical and Experimental Studies in Nuclear Applications and Technology, Hatay, Turkey, 28 - 30 April 2016
- XVI. **COMPARISON OF 1.4, 1.5 AND 1.6 – CELL SUPERCONDUCTING GUN CAVITY DESIGN**  
YILDIZ H., PORSUK D.  
Vth International Conference on Superconductivity and Magnetism, Muğla, Turkey, 24 - 30 April 2016
- XVII. **SUPERCONDUCTING CAVITY DEFECTS AND ELECTROMAGNETIC FIELD PROBLEMS**  
YILDIZ H., PORSUK D.  
Vth International Conference on Superconductivity and Magnetism, Muğla, Turkey, 24 - 30 April 2016
- XVIII. **Superconducting Cavity Design and Beam Dynamics**  
YILDIZ H., PORSUK D.  
ICETAS 2016 - 1st International Conference on Engineering Technology and Applied Sciences, Afyon, Turkey, 21 - 22 April 2016
- XIX. **Problems of Superconducting Cavities and Electromagnetic Field**  
YILDIZ H., PORSUK D.  
ICETAS 2016 - 1st International Conference on Engineering Technology and Applied Sciences, Afyon, Turkey, 21 - 22 April 2016
- XX. **Vacuum System Design and Calculations of Electron Gun System**  
YILDIZ H., YILDIZ İ.  
IV. YUKPOP International Vacuum Workshop, Afyon, Turkey, 28 - 30 March 2016
- XXI. **Süperiletken Kavite ve Eletromanyetik Alan Kusurları**  
YILDIZ H., PORSUK D.  
IV. YUKPOP International Vacuum Workshop, Afyon, Turkey, 28 - 30 March 2016
- XXII. **Electromagnetic Field Behaviour inside the Superconducting Cavity System at Linear Accelerators**  
YILDIZ H., PORSUK D.  
IV. YUKPOP International Vacuum Workshop, Afyon, Turkey, 28 - 30 March 2016
- XXIII. **Türk Hızlandırıcı Merkezi, SASE-Serbest Elektron Lazeri Vakum Sistem Yapısı Tasarım Çalışmaları**  
YILDIZ H.  
IV. YUKPOP International Vacuum Workshop, Afyon, Turkey, 28 - 30 March 2016
- XXIV. **SRF Gun Cavity Design, Field Distribution Simulations, and Beam Dynamics Studies of the SASE-FEL System**  
YILDIZ H., PORSUK D.  
IV. YUKPOP International Vacuum Workshop, Afyon, Turkey, 28 - 30 March 2016
- XXV. **Optimisation of Nanoscale (0.1-100 nm) Wavelength Laser Light**  
YILDIZ H.  
IV. YUKPOP International Vacuum Workshop, Afyon, Turkey, 28 - 30 March 2016
- XXVI. **Design Optimization for X Ray Free Electron Lasers**  
YILDIZ H., ÇAKIR R., Demirhan E.  
2nd International Conference on Computational and Experimental Science and Engineering International Congress, Antalya, Turkey, 14 - 19 October 2015
- XXVII. **Cavity and Field Problems at Linear Accelerators**  
YILDIZ H., Porsuk D.  
2nd International Conference on Computational and Experimental Science and Engineering International Congress, Antalya, Turkey, 14 - 19 October 2015
- XXVIII. **Simulation of Main Linear Accelerator Cavities**  
YILDIZ H., ÇAKIR R., Porsuk D.  
2nd International Conference on Computational and Experimental Science and Engineering International Congress, Antalya, Turkey, 14 - 19 October 2015
- XXIX. **Nanometer Wavelength FEL Optimization**  
YILDIZ H., Demirhan E.

- 9th International Physics Conference of the Balkan Physical Union, İstanbul University, İstanbul, Turkey, 24 - 27 August 2015
- XXX. Superconducting and Normalconducting cavity simulation comparisons for gun and main accelerators**  
YILDIZ H., Porsuk D.  
9th International Physics Conference of the Balkan Physical Union, İstanbul, Turkey, 24 - 27 August 2015
- XXXI. Turkish accelerator center: The status and road map**  
AKSOY A., ÇAKIR O., YILDIZ H., YAVAŞ Ö., AKKUŞ B., ÖZKORUCUKLU S., ŞAHİN YALÇIN L., Nergiz Z., Aksakal H., Algin E.  
5th International Particle Accelerator Conference, IPAC 2014, Dresden, Germany, 15 - 20 June 2014, pp.2921-2923
- XXXII. Start-to-end simulation of TAC SASE FEL facility**  
YILDIZ H.  
2nd International Conference on Particle Physics in Memoriam Engin Arik and Her Colleagues, ICPP-Istanbul II, İstanbul, Turkey, 20 - 25 June 2011, vol.347
- XXXIII. The status of TAC IR FEL and bremsstrahlung project**  
AKSOY A., YAVAŞ Ö., Zengin K., ÖZKORUCUKLU S., Tapan I., YILDIZ H., Nergiz Z., Aksakal H., Arıkan P.  
1st International Particle Accelerator Conference, IPAC 2010, Kyoto, Japan, 23 - 28 May 2010, pp.2242-2244
- XXXIV. The TAC IR FEL oscillator facility project**  
KETENOĞLU B., AKSOY A., YAVAŞ Ö., Tural M., Karslı O., ÖZKORUCUKLU S., Arıkan P., KASAP E., YILDIZ H., Bilen B., et al.  
31st International Free Electron Laser Conference, FEL 2009, Liverpool, United Kingdom, 23 - 28 August 2009, pp.580-582
- XXXV. Single anomalous production of the fourth SM family leptons at future e+e-, ep and pp colliders**  
Ciftci A. K., Ciftci R., Karadeniz H., Sultansoy S., Yildiz H.  
6TH International Conference of the Balkan Physical Union, İstanbul, Turkey, 22 August 2006 - 26 August 2007, vol.899, pp.191-192
- XXXVI. Single anomalous production of the fourth SM family quarks at future e+e-, ep, and pp colliders**  
Ciftci A. K., Ciftci R., Sultansoy S., Yildiz H.  
6TH International Conference of the Balkan Physical Union, İstanbul, Turkey, 22 August 2006 - 26 August 2007, vol.899, pp.227-228

## Scientific Research / Working Group Memberships

Atlas Deneyi, CERN, İsviçre, <https://atlas.cern/>, 2004 - Continues

Cms Deneyi, CERN, İsviçre, <https://home.cern/science/experiments/cms>, 1999 - 2004

## Metrics

Publication: 261

Citation (WoS): 9480

Citation (Scopus): 18813

H-Index (WoS): 19

H-Index (Scopus): 62