Prof. İSMAİL TURAN

Personal Information

Office Phone: +90 312 210 5083
Fax Phone: +90 312 210 5099
Email: ituran@metu.edu.tr
Web: http://users.metu.edu.tr/ituran/
Address: Orta Doğu Teknik Üniversitesi Fizik Bölümü Üniversiteler Mah 06800 Ankara

International Researcher IDs
ScholarID: EfhlproAAAAJ
ORCID: 0000-0003-4622-4301
Publons / Web Of Science ResearcherID: AAC-3358-2020
ScopusID: 8880158300
Yoksis Researcher ID: 109165

Education Information

Doctorate, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, Turkey 1999 - 2003
Postgraduate, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, Turkey 1997 - 1999
Undergraduate, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, Turkey 1993 - 1997

Dissertations

Doctorate, Flavor changing neutral current processes in the framework of the two Higgs doublet model, Orta Doğu Teknik Üniversitesi, Faculty of Arts and Sciences, Department of Physics, 2003
Postgraduate, The Faddeev-Jackin quantization of the U(1) gauged SU(2) WZW model, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 1999

Research Areas

Properties of special particles, Special reactions and phenomonology

Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 2017 - Continues
Associate Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 2012 - 2017
Assistant Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 2011 - 2012
Researcher, Carleton University, Science, Physics, 2009 - 2011
Researcher, Concordia University, Art and Sciences, Physics, 2004 - 2009
Medical Doctor, College of William and Mary, Fen-Edebiyat, Fizik, 2003 - 2009
Research Assistant, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 1997 - 2003

Academic and Administrative Experience

Chair of PhD Qualfying Committee, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 2014 - Continues
Fakülte Kurulu Üyesi, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 2012 - 2015

Advising Theses

TURAN İ., Exploring new physics below and above the electroweak scale, Postgraduate, E.AKYUMUK(Student), 2022
TURAN İ., In search of hidden sector through the mono-photon channel, Postgraduate, E.SARTAŞ(Student), 2022
TURAN İ., Exploring the Casimir force at one-loop level, Postgraduate, N.NEVRA(Student), 2021
Turan İ., Yurduşen İ., Exploring extra dimensions through rare processes, Postgraduate, K.ŞİMŞEK(Student), 2019
Turan İ., Signs of unparticles at compact linear collider, Postgraduate, C.DİNÇ(Student), 2019
TURAN İ., Hidden sector through dark higgs: A nonminimal extension, Postgraduate, K.YİĞİT(Student), 2018
TURAN İ., Spontaneous symmetry breaking and Higgs mechanism, Postgraduate, I.KAHRAMAN(Student), 2017
TURAN İ., Associated Production of Higgs and Weak Bosons at the LHC (Large Hadron Collider), Doctorate, B.PULİÇE(Student), 2016
TURAN İ., A Lorentz violating theory: Its nonminimal extension in the photon sector, Postgraduate, S.ALBAYRAK(Student), 2016
TURAN İ., Probing physics beyond the standard model through neutrino-electron scatterings, Doctorate, S.BİLMİŞ(Student), 2016

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Constraining nonminimal dark sector scenarios with the COHERENT neutrino scattering data**
ELPE A., Akyumuk E., ALIYEV T., SELBUZ L., TURAN İ.
Physical Review D, vol.107, no.7, 2023 (SCI-Expanded)

II. **Heavy Z′ bosons in the secluded U(1) ′ model at hadron colliders**
Frank M., Selbuz L., TURAN İ.
European Physical Journal C, vol.81, no.5, 2021 (SCI-Expanded)

III. **Scalar unparticle signals at the LHC**
ALIYEV T., BİLMİŞ S., Solmaz M., TURAN İ.
PHYSICAL REVIEW D, vol.95, no.9, 2017 (SCI-Expanded)

IV. **Constraints on dark photon from neutrino-electron scattering experiments**
BİLMİŞ S., TURAN İ., Aliev T., Deniz M., Singh L., Wong H. T.
PHYSICAL REVIEW D, vol.92, no.3, 2015 (SCI-Expanded)

V. **CASIMIR FORCE IN WARPED HIGHER DIMENSIONAL MODELS SURVEY**
ALIYEV T., Saad N., TURAN İ.
APPLIED AND COMPUTATIONAL MATHEMATICS, vol.13, no.2, pp.147-174, 2014 (SCI-Expanded)

VI. **Neutralino and chargino production in U(1)' at the LHC**
Frank M., Selbuz L., TURAN İ.
EUROPEAN PHYSICAL JOURNAL C, vol.73, no.12, 2013 (SCI-Expanded)

VII. **Higgs bosons in supersymmetric U(1)' models with CP violation**
Frank M., Selbuz L., SOLMAZ L., TURAN İ.
PHYSICAL REVIEW D, vol.87, no.7, 2013 (SCI-Expanded)

VIII. **Constraining extra neutral gauge bosons with atomic parity violation measurements**
Diener R., Godfrey S., Turan İ.
PHYSICAL REVIEW D, vol.86, no.11, 2012 (SCI-Expanded)

IX. **Top quark pair production and asymmetry at the Tevatron and LHC in left-right models**

Frank M., Hayreter A., Turan İ.
PHYSICAL REVIEW D, vol.84, no.11, 2011 (SCI-Expanded)

X. **Scalar neutrinos at the LHC**
Demir D. A., Frank M., Selbuz L., Turan İ.
PHYSICAL REVIEW D, vol.83, no.9, 2011 (SCI-Expanded)

XI. **Production and decays of W-R bosons at the LHC**
Frank M., Hayreter A., Turan İ.
PHYSICAL REVIEW D, vol.83, no.3, 2011 (SCI-Expanded)

XII. **B decays in an asymmetric left-right model**
Frank M., Hayreter A., Turan İ.
PHYSICAL REVIEW D, vol.82, no.3, 2010 (SCI-Expanded)

XIII. **Sneutrino dark matter: Symmetry protection and cosmic ray anomalies**
Demir D. A., Everett L. L., Frank M., Selbuz L., Turan İ.
PHYSICAL REVIEW D, vol.81, no.3, 2010 (SCI-Expanded)

XIV. **Collider effects of unparticle interactions in multiphoton signals**
ALIYEV T., Frank M., Turan I.
PHYSICAL REVIEW D, vol.80, no.11, 2009 (SCI-Expanded)

XV. **Doubly charged Higgsinos at the Tevatron**
Demir D. A., Frank M., Ghosh D. K., Huitu K., Rai S. K., Turan İ.
PHYSICAL REVIEW D, vol.79, no.9, 2009 (SCI-Expanded)

XVI. **Search for gauge extensions of the MSSM at the LHC**
Ali A., Demir D. A., Frank M., Turan İ.
PHYSICAL REVIEW D, vol.79, no.9, 2009 (SCI-Expanded)

XVII. **Casimir force in Randall-Sundrum models with q+1 dimensions**
Frank M., Saad N., Turan İ.
PHYSICAL REVIEW D, vol.78, no.5, 2008 (SCI-Expanded)

XVIII. **Signals of doubly-charged higgsinos at the CERN Large Hadron Collider**
Demir D. A., Frank M., Huitu K., Rai S. K., Turan İ.
PHYSICAL REVIEW D, vol.78, no.3, 2008 (SCI-Expanded)

XIX. **Production of single heavy charged leptons at a linear collider**
De Pree E., Sher M., Turan İ.
PHYSICAL REVIEW D, vol.77, no.9, 2008 (SCI-Expanded)

XX. **The integrability of Pauli system in Lorentz violating background**
Frank M., Turan İ., Yurdusen I.
JOURNAL OF HIGH ENERGY PHYSICS, no.1, 2008 (SCI-Expanded)

XXI. **CP asymmetry in charged Higgs decays to chargino-neutralino pairs**
Frank M., Turan İ.
PHYSICAL REVIEW D, vol.76, no.7, 2007 (SCI-Expanded)

XXII. **CP asymmetry in charged Higgs decays in the MSSM**
Frank M., Turan İ.
PHYSICAL REVIEW D, vol.76, no.1, 2007 (SCI-Expanded)

XXIII. **Casimir force in Randall-Sundrum models**
Frank M., Turan İ., Ziegler L.
PHYSICAL REVIEW D, vol.76, no.1, 2007 (SCI-Expanded)

XXIV. **Supersymmetry-induced flavor-changing neutral-current top-quark processes at the CERN Large Hadron Collider**
Cao J. J., Eilam G., Frank M., Hikasa K., Liu G. L., Turan İ., Yang J. M.
PHYSICAL REVIEW D, vol.75, no.7, 2007 (SCI-Expanded)

XXV. **Rare decay of the top quark t -> cl(l)over-bar and single top quark production at the ILC**
Frank M., Turan İ.
PHYSICAL REVIEW D, vol.74, no.7, 2006 (SCI-Expanded)

XXVI. **Casimir force in a Lorentz violating theory**
Frank M., Turan İ.
PHYSICAL REVIEW D, vol.74, no.3, 2006 (SCI-Expanded)

XXVII. **Single top production via gluon fusion at CERN LHC**
Eilam G., Frank M., Turan İ.
PHYSICAL REVIEW D, vol.74, no.3, 2006 (SCI-Expanded)

XXVIII. **Neutralino dark matter in the left-right supersymmetric model**
Demir D. A., Frank M., Turan İ.
PHYSICAL REVIEW D, vol.73, no.11, 2006 (SCI-Expanded)

XXIX. **Rare decay of the top t -> cgg in the standard model**
Eilam G., Frank M., Turan İ.
PHYSICAL REVIEW D, vol.73, no.5, 2006 (SCI-Expanded)

XXX. **CP-odd phase effects in a left-right symmetric chargino sector**
Frank M., Turan İ., de Ona A.
PHYSICAL REVIEW D, vol.72, no.7, 2005 (SCI-Expanded)

XXXI. **Width effects on near threshold decays of the top quark t -> cWW,cZZ and of neutral Higgs bosons**
Bar-Shalom S., Eilam G., Frank M., Turan İ.
PHYSICAL REVIEW D, vol.72, no.5, 2005 (SCI-Expanded)

XXXII. **t -> cg,c gamma,cZ in the left-right supersymmetric model**
Frank M., Turan İ.
PHYSICAL REVIEW D, vol.72, no.3, 2005 (SCI-Expanded)

XXXIII. **Neutrino masses in the effective rank-5 subgroups of E-6. II. Supersymmetric case**
Frank M., Sher M., Turan İ.
PHYSICAL REVIEW D, vol.71, no.11, 2005 (SCI-Expanded)

XXXIV. **Neutrino masses in effective rank-5 subgroups of E-6. I. Nonsupersymmetric case**
Frank M., Sher M., Turan İ.
PHYSICAL REVIEW D, vol.71, no.11, 2005 (SCI-Expanded)

XXXV. **Lorentz and CPT violation in the Higgs sector**
Anderson D., Sher M., Turan İ.
PHYSICAL REVIEW D, vol.70, no.1, 2004 (SCI-Expanded)

XXXVI. **Universal extra dimensions and Kaluza-Klein bound states**
Carone C., Conroy J., Sher M., Turan İ.
PHYSICAL REVIEW D, vol.69, no.7, 2004 (SCI-Expanded)

XXXVII. **mu+N ->tau+N at a muon or neutrino factory**
Sher M., Turan İ.
PHYSICAL REVIEW D, vol.69, no.1, 2004 (SCI-Expanded)

XXXVIII. **Flavor changing t -> cl(1)(-)l(2)(+) decay in the general two Higgs doublet model**
Iltan E., Turan İ.
PHYSICAL REVIEW D, vol.67, no.1, 2003 (SCI-Expanded)

XXXIX. **B -> K*tau(+)tau(-) decay in the general two Higgs doublet model including the neutral Higgs boson effects**
Iltan E., Turan G., Turan İ.
JOURNAL OF PHYSICS G-NUCLEAR AND PARTICLE PHYSICS, vol.28, no.2, pp.307-320, 2002 (SCI-Expanded)

XL. **Lepton flavor violating Z -> l(1)(+)l(2)(-) decay in the general two Higgs doublet model**
Iltan E., Turan İ.
PHYSICAL REVIEW D, vol.65, no.1, 2002 (SCI-Expanded)

Articles Published in Other Journals

I. **Higgs, chargino and neutralino mass spectra in RPV U(1)' model**

SELBUZ L., Frank M., TURAN İ.
NUOVO CIMENTO C-COLLOQUIA AND COMMUNICATIONS IN PHYSICS, vol.40, no.6, 2017 (ESCI)

Refereed Congress / Symposium Publications in Proceedings

I. **New neutral gauge bosons in supersymmetric U(1)0 models at hadron colliders**
Frank M., SELBUZ L., TURAN İ.
2021 European Physical Society Conference on High Energy Physics, EPS-HEP 2021, Virtual, Online, 26 - 30 July 2021, vol.398

II. **Higgs and Chargino/Neutralino Mass Spectra in U(1)'xx Model with R-Parity Violation**
Frank M., SELBUZ L., TURAN İ.
PIC2017: 37. International Symposium on Physics in Collision, 4 - 08 September 2017

III. **Constraining Dark Photon via Neutrino Electron Scattering Experiments**
BİLMİŞ S., TURAN İ., ALİYEV T., DENİZ M., Singh L., Wong H. T.
Institute for Research in Fundamental Sciences (IPM), Tahran, Iran, 22 - 27 January 2016

IV. **Unparticle Signals at LHC**
ALİYEV T., BİLMİŞ S., solmaz M., TURAN İ.
ICTP-ECAR, Turkey, 29 September - 03 October 2015

Supported Projects

ALIYEV T., ŞİMŞEK K., SAVCI M., TURAN İ., BİLMİŞ S., Project Supported by Higher Education Institutions, İki Ağır Kuarktan Oluşan Baryon Sisteminin Özelliklerinin LHC Deneyinde Araştırılması, 2018 - 2019
ALIYEV T., TURAN İ., BİLMİŞ S., Project Supported by Higher Education Institutions, Fermiyonik Aparçacıklarının Özelliklerinin İncelenmesi ve Deneysel İzleri, 2017 - 2017
TURAN İ., BİLMİŞ S., Project Supported by Higher Education Institutions, Standart Model Ötesi Fiziğin Büyük Hadron Çarpıştırıcısı'nda Araştırılması, 2013 - 2015

Scientific Refereeing

PHYSICAL REVIEW D - PARTICLES, FIELDS, GRAVITATION AND COSMOLOGY, SCI Journal, March 2021

Metrics

Publication: 45
Citation (WoS): 916
Citation (Scopus): 799
H-Index (WoS): 19
H-Index (Scopus): 15

Awards

Turan İ., Üstün Başarılı Genç Bilim İnsanı Ödülleri Programı, Tüba, June 2014
Turan İ., The Science Academy Young Scientist Award (BAGEP), Bilimler Akademisi, February 2014
Turan İ., FABED Eser Tümen Üstün Başarı Ödülü, Feyzi Akkaya Bilimsel Etkinlikleri Destekleme Fonu (Fabed), July 2013
Turan İ., Araştırma Teşvik Ödülü, Mustafa Parlar Vakfı, December 2012
Turan İ., Prof. Baki Komsuoğlu Fen Bilimleri Teşvik Ödülü, Kocaeli Üniversitesi, April 2012