#### Asst. Prof. EMİNE YILDIRIM

#### **Personal Information**

Office Phone: <u>+90 0462 377 3675</u> Email: emineyildirim@ktu.edu.tr

Web: https://avesis.ktu.edu.tr/emineyildirim

International Researcher IDs ORCID: 0000-0003-0739-2513

Publons / Web Of Science ResearcherID: AAW-3482-2020

Yoksis Researcher ID: 284685

#### **Education Information**

Doctorate, University of Southampton, Faculty Of Physical Sciences And Engineering, Physics, United Kingdom 2013 - 2017

Postgraduate, University of Sussex, School Of Mathemathical And Physical Sciences, Particle Physics, United Kingdom 2011 - 2012

Undergraduate, Erciyes University, Fen Fakültesi, Fizik, Turkey 2005 - 2009

# Foreign Languages

English, C1 Advanced

#### Dissertations

Doctorate, Phenomenological aspects of elementary and composite Higgs models, University of Southampton, Faculty Of Physical Sciences And Engineering, Physics, 2017

Postgraduate, Review of The Higgs Mechanism in The Standard Model, University of Sussex, School Of Mathemathical And Physical Sciences, Particle Physics, 2012

#### **Research Areas**

Physics, Basic Particles and Areas, General Theory of Particles and Fields, Special reactions and phenomonology, Natural Sciences

# **Academic Titles / Tasks**

Assistant Professor, Karadeniz Technical University, Fen Fakültesi, Fizik, 2022 - Continues Lecturer PhD, Karadeniz Technical University, Fen Fakültesi, Fizik, 2018 - 2022 Lecturer PhD, Adiyaman University, Fen Edebiyat Fakultesi, Fizik, 2018 - 2018

# Academic and Administrative Experience

#### Courses

Fizikte Matematiksel Yöntemler-I, Undergraduate, 2023 - 2024

Modern Particle Physics, Postgraduate, 2022 - 2023

Physics-I, Undergraduate, 2022 - 2023, 2021 - 2022

Fizik-I, Undergraduate, 2022 - 2023

Fizik I, Undergraduate, 2022 - 2023

Quantum Electrodynamics, Postgraduate, 2022 - 2023

PHYSICS II, Undergraduate, 2020 - 2021

Bitirme Calismasi, Undergraduate, 2020 - 2021

Bitirme calismasi, Undergraduate, 2021 - 2022

PHYSICS II, Undergraduate, 2019 - 2020

Physics I, Undergraduate, 2020 - 2021

FIZIK II, Undergraduate, 2019 - 2020

MESLEKI INGILIZCE, Undergraduate, 2020 - 2021

Genel Fizik, Undergraduate, 2019 - 2020

Physics-II, Undergraduate, 2018 - 2019

PHYSICS I, Undergraduate, 2019 - 2020

FIZIK I, Undergraduate, 2019 - 2020

Physics-I, Undergraduate, 2018 - 2019

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

 I. Loop-induced h -> gamma gamma, Z gamma, gg decays in 3-Higgs doublet models YILDIRIM E.

INTERNATIONAL JOURNAL OF MODERN PHYSICS A, vol.37, no.13, 2022 (SCI-Expanded)

II. Light charged Higgs boson scenario in 3-Higgs doublet models

Akeroyd A. G., Moretti S., Yagyu K., Yildirim E.

INTERNATIONAL JOURNAL OF MODERN PHYSICS A, vol.32, 2017 (SCI-Expanded)

III. LHC phenomenology of composite 2-Higgs doublet models

De Curtis S., Moretti S., Kei Yagyu K. Y., Yildirim E.

EUROPEAN PHYSICAL JOURNAL C, vol.77, no.8, 2017 (SCI-Expanded)

IV. Single and double SM-like Higgs boson production at future electron-positron colliders in composite 2HDMs

De Curtis S., Moretti S., Yagyu K., Yildirim E.

PHYSICAL REVIEW D, vol.95, no.9, 2017 (SCI-Expanded)

V. Prospects for charged Higgs searches at the LHC

Akeroyd A. G., Aoki M., Arhrib A., Basso L., Ginzburg I. F., Guedes R., Hernandez-Sanchez J., Huitu K., Hurth T., Kadastik M., et al.

EUROPEAN PHYSICAL JOURNAL C, vol.77, no.5, 2017 (SCI-Expanded)

VI. Perturbative unitarity bounds in composite two-Higgs doublet models

De Curtis S., Moretti S., Yagyu K., Yildirim E.

PHYSICAL REVIEW D, vol.94, no.5, 2016 (SCI-Expanded)

# Refereed Congress / Symposium Publications in Proceedings

# I. DECAYS OF THE SM-LIKE HIGGS BOSON INTO PAIR OF GLUONS AND $Z\gamma$ IN 3-HIGGS DOUBLET MODELS

Yıldırım E.

TURKISH PHYSICAL SOCIETY 38th INTERNATIONAL PHYSICS CONGRESS, Muğla, Turkey, 31 August - 04 September 2022, pp.181

#### II. New charged scalar contributions to h-> Zγ in the 3HDM

Yıldırım E

ECFA WHF WG1: 1st Workshop of the Higgs/Top/EW group, Zürich, Switzerland, 20 - 22 April 2022, pp.1-2

#### III. Aspects of the extended Higgs boson sector within the C2HDM model

Yıldırım E., Moretti E., Yagyu K., De Curtis S.

NSP 2018, Trabzon, Turkey, 12 - 14 September 2018, pp.1

#### IV. Phenomenology of Composite 2-Higgs Doublet Models

Yıldırım E., Moretti S., Yagyu K., De Curtis S.

PASCOS 2017, Madrid, Spain, 19 - 23 June 2017, pp.1

#### V. Light charged Higgs boson scenario in 3HDMs

Yagyu K., Akeroyd A. G., Moretti S., YILDIRIM E.

Charged 2016, Uppsala, Sweden, 3 - 06 October 2016, vol.286, pp.1-6

#### VI. Theory and Phenomenology of Composite 2-Higgs Doublet Models

De Curtis S., Moretti S., Yagyu K., Yıldırım E.

CHARGED 2016, Uppsala, Sweden, 3 - 06 October 2016, vol.286, pp.1-6

#### VII. Theory and Phenomenology of Composite 2-Higgs Doublet Model

Yıldırım E., Moretti S., Yagyu K., De Curtis S.

Workshop on Multi-Higgs Models, Lisbon, Portugal, 6 - 09 September 2016

#### VIII. Model building and phenomenology of a composite 2-Higgs doublet model

Yıldırım E., Moretti S., Yagyu K.

Fifth Next PhD Workshop, Oxford, England, 8 - 11 June 2015, pp.1

# $IX. \quad \textbf{Perturbative unitarity bound on the parameter space in composite two Higgs doublet models}$

Yıldırım E., Moretti S., Yagyu K., De Curtis S.

IOP Institute of Physics, Joint Annual HEPP and APP conference, Brighton, England, 21 - 23 March 2016, pp.1

# X. Unitarity bound in the composite two Higgs doublet model

Yıldırım E., Moretti S., Yagyu K., De Curtis S.

Scalars 2015, Warszawa, Poland, 3 - 07 December 2015, pp.8

#### **Metrics**

Publication: 16 Citation (WoS): 124 Citation (Scopus): 141 H-Index (WoS): 5 H-Index (Scopus): 5

#### **Congress and Symposium Activities**

NSP2018, Attendee, Trabzon, Turkey, 2018

PASCOS 2017, Attendee, Madrid, Spain, 2017

Annual Theory Meeting 2016, Attendee, United Kingdom, 2016

Prospects for Charged Higgs Discovery at Colliders (CHARGED 2016), Attendee, Uppsala, Sweden, 2016

Workshop on Multi-Higgs Models, Attendee, Lisbon, Portugal, 2016

IOP Institute of Physics Conference, Attendee, Brighton, United Kingdom, 2016

YETI 2016, Attendee, Durham, United Kingdom, 2016
YOUNG THEORISTS' FORUM 8, Attendee, Durham, United Kingdom, 2016
Scalars 2015, Attendee, Warszawa, Poland, 2015
UK HEP Forum 2015, Attendee, Abingdon, United Kingdom, 2015
Fifth NexT PhD Workshop, Attendee, Abingdon, United Kingdom, 2015
Higgs Centre School of Theoretical Physics, Attendee, Edinburgh, United Kingdom, 2015
GGI LECTURES ON THE THEORY OF FUNDAMENTAL INTERACTIONS, Attendee, Florence, Italy, 2015
Zuoz 2014 PSI Summer School, Attendee, Zuoz, Switzerland, 2014
44th British Universities Summer School in Theoretical Elementary Particle Physics, Attendee, Southampton, United Kingdom, 2014

# **Scholarships**

Turkish Ministry of Education Scholarship for the Ph. D. Degree in the UK., Ministry of Education, 2013 - 2017 Turkish Ministry of Education Scholarship for the M.Sc Degree in the UK., Ministry of Education, 2009 - 2012

# Non Academic Experience

MİLLİ EĞİTİM BAKANLIĞI