

## Asst. Prof. EMİNE YILDIRIM

### Personal Information

**Office Phone:** [+90 0462 377 3675](tel:+9004623773675)

**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 Mathematical 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 Mathematical 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

### Courses

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  $h \rightarrow \gamma\gamma$ ,  $Z\gamma$ ,  $gg$  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**  
Yildirim E.  
TURKISH PHYSICAL SOCIETY 38th INTERNATIONAL PHYSICS CONGRESS, Muğla, Turkey, 31 August - 04 September 2022, pp.181
- II. **New charged scalar contributions to  $h \rightarrow Z\gamma$  in the 3HDM**  
Yildirim 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**  
Yildirim 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**  
Yildirim 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., Yildirim E.  
CHARGED 2016, Uppsala, Sweden, 3 - 06 October 2016, vol.286, pp.1-6
- VII. **Theory and Phenomenology of Composite 2-Higgs Doublet Model**  
Yildirim 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**  
Yildirim E., Moretti S., Yagyu K.  
Fifth Next PhD Workshop, Oxford, England, 8 - 11 June 2015, pp.1
- IX. **Perturbative unitarity bound on the parameter space in composite two Higgs doublet models**  
Yildirim 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**  
Yildirim E., Moretti S., Yagyu K., De Curtis S.  
Scalars 2015, Warszawa, Poland, 3 - 07 December 2015, pp.8

## Metrics

Publication: 16

Citation (WoS): 118

Citation (Scopus): 130

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, 2010 - 2012