



# Assoc. Prof. Dr. Ali Övgün

*Curriculum Vitae (Monday 18<sup>th</sup> April, 2022)*

## PERSONAL DETAILS

*Birthdate* March 22, 1988  
*Address* AS246, Physics Department, EMU, Aristóteles Street, 99628, Gazimagusa, TRNC, via Mersin 10 Turkey.  
*Mail* [ali.ovgun@emu.edu.tr](mailto:ali.ovgun@emu.edu.tr)  
*Webpage* <http://aovgun.weebly.com>  
*Office Tel* +90-392-6301376

**Google Scholar Profile**

**Publons Profile**

**Inspirehep Profile**

**arXiv Profile**

**Scopus Profile**

**Researchgate Profile**

## RESEARCH INTEREST

Theoretical Physics, Quantum Gravity, Modified Gravity Theories, Black holes, Wormholes, Gravitational lensing, Cosmology, Shadow cast, Gravitational waves, Quasinormal modes, Greybody factors, Hawking Radiation, Black hole chemistry, AdS/CFT correspondence, Holographic Superconductors, Entanglement, Complexity

## ACADEMIC EXPERIENCES

**Associate Professor**

*Eastern Mediterranean University, Famagusta, CYPRUS.*

Aug.2020-  
Now

**Assistant Professor**

*Eastern Mediterranean University, Famagusta, CYPRUS.*

Sept.2018-  
July 2020

**Postdoctoral Fellows**

*Instituto de Física, Pontificia Universidad Católica de Valparaíso (PUCV), CHILE*

2017-2020

**School of Prospects in Theoretical Physics 2018 From Qubits to Spacetime (PITP 2018)**

*Institute for Advanced Study, 1 Einstein Drive, Princeton, USA.*

July 2018

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**Research visitor**April/May  
2018

*Prof. Leonard Susskind, Stanford Institute for Theoretical Physics, Stanford University, Stanford, California 94305, USA.*

**Research visitor**

April 2018

*Prof. Douglas Singleton, Physics Department, California State University, Fresno, CA 93740, USA.*

**Research visitor**

Jan/Feb 2018

*Prof. Robert B. Mann, Department of Physics and Astronomy, University of Waterloo, Waterloo, Ontario, N2L 3G1, CANADA*

**Research visitor**

Jan/Feb 2018

*Perimeter Institute for Theoretical Physics, Waterloo, Ontario, N2L 2Y5, CANADA*

**Research visitor**

Oct/2017

*Theoretical Physics -The European Organization for Nuclear Research-CERN Theory Division, Geneva, SWITZERLAND*

**Part-Time Instructor**08/2016-  
06/2017

*Eastern Mediterranean University, N. CYPRUS*

PHYS111,PHYS101, FIZK101, FIZK103, FIZK104, FIZK201, FIZK202, FIZK503

**Lecturer**09/2015-  
07/2016

*Eastern Mediterranean University, Full-time R.A, N. CYPRUS*

PHYS101, PHYS111, FIZK203 for undergraduate students studying in different departments.

**Research Assistant in Physics**09/2011-  
09/2015

*Eastern Mediterranean University, Full-time, N. CYPRUS*

working alongside teachers to support learning activities, acting as a specialist assistant for particular subjects and leading classes under the direction of the teacher

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**EDUCATION****Ph.D. Physics**02/2013-  
06/2016

*Eastern Mediterranean University, N. CYPRUS*

CGPA:3.71/4.00 Thesis title: Studies on Thin-shells and Thin-shell Wormholes

Supervisor:Prof. Dr. Mustafa Halilsoy

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## MSc. Physics

09/2011-  
02/2013

*Eastern Mediterranean University, N. CYPRUS*

CGPA:3.43/4.00, Thesis title: Dark Matter Modification of f(R) or Wimps Miracle

Supervisor: Prof. Dr. Mustafa Halilsoy

## NExT PhD school visitor

09/2010-  
06/2011

*University of Southampton, UNITED KINGDOM*

I took QFT, QFT2, Cosmology and GR courses.

## BSc. Physics

09/2006-  
07/2010

*Izmir Institute of Technology, TURKEY*

CGPA: 3.28/4.00 With honors degree and graduated from undergrad as the 2nd. best student.

Thesis title: Time in Quantum Tunneling.

Supervisor: Prof. Dr. Durmus A. Demir

## College

09/1999-  
07/2005

*19 Mayıs Turk Maarif Koleji, Girne, N. CYPRUS*

CGPA: 8.6/10 Majored in Science and Mathematics, with high honors

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## SKILLS

**Languages** Turkish (mother tongue)  
English (fluent) (YÖKDİL Exam: 92.50/100)  
Spanish (beginner)  
Russian (beginner)  
Italian (beginner)

**Software** MAPLE, L<sup>A</sup>T<sub>E</sub>X, PYTHON, LINUX, FORTRAN, MATHEMATICA  
XVS, RNPLETAL, EDCRGTC, RICCI, GRTENSOR, CADABRA, MAXIMA, XACT.

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## INTERNATIONAL PROJECTS

CONICYT FONDECYT Postdoctorado Grant No. 3170035- CHILE 2017-2020

*Information Extraction From Black Holes And Wormholes By Their Quasinormal-Modes, Greybodies And Hawking Radiations,*

**Sponsoring researcher and institution:** Prof. Dr. Joel Saavedra

*Pontificia Universidad Catolica De Valparaiso, Chile.*

**Budget:** 120,000 \$.

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## HONORS, AWARDS AND GRANTS

1. 2005-2010 Scholarship from TRNC Ministry of National Education, NORTH CYPRUS.
2. 2010 Scholarship for MSc EuroMasters in Physics from University of Southampton, UK.
3. 2010 Scholarship from AtoSim Erasmus Mundus Master of Science, EU.

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4. 2010-2011 Scholarship from NExT PhD school, University of Southampton, UK.
  5. 2011-2016 Research Assistantships, Eastern Mediterranean University, NORTH CYPRUS.
  6. 2014-2016 EMU IGSR Publication Awards, NORTH CYPRUS.
  7. 2017-2020 Postdoctoral Fellowship, CONICYT-Chile through FONDECYT post-doctorado No. 3170035, Pontificia Universidad Catolica de Valparaiso, CHILE.
  8. WEBOFSCIENCE PUBLONS 2018 Peer Review Awards, USA.
  9. EMU 2018 Outstanding Publication Awards
  10. EMU 2018 Citation Awards
  11. WEBOFSCIENCE PUBLONS 2019 Top Peer Reviewer in Physics Awards, USA.
  12. IOP 2019 Outstanding Reviewer for Classical and Quantum Gravity
  13. EMU 2019 Citation Awards
  14. EMU 2019 Outstanding Publication Awards
  15. Among World's Top 2% Scientists – Stanford University 2019 Releases List
  16. Ranking of first 6000 academicians along with their major and scientific area of interests in Turkey based on H-index and citations, 2021 Scientists – Prof. Murat Alper
  17. Among World's Top 2% Scientists – Stanford University 2020 Releases List

## **SUPERVISORSHIPS**

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- PhD Supervisor: YASHMITHA KUMARAN  
[Weak Deflection Angle via Gauss-Bonnet Theorem](#), 2018-Now.
- MSc Supervisor: FLORA BABAYEVA  
[Shadow Cast of The Schwarzschild-like Black Holes](#), 2020-2022.
- MSc Supervisor: HAMZA SABER ZEBARI  
[Newtonian Cosmology](#), 2018-2020.
- MSc Supervisor: GABRIEL WIRDZELII JOSEPH  
[Cosmology with Varying Physical Constants](#), 2018-2020.
- MSc Co-Supervisor: HUSEYIN KARYAL  
[Geodesics of Black Holes in Bumblebee Gravity Theory](#), 2018-2020.

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## **TOTAL 106 PUBLICATIONS IN PEER REVIEWED JOURNALS**

Sorted by Journal Name

### **PHYSICAL REVIEW D**

1. **Finite-Distance Gravitational Deflection of Massive Particles by the Kerr-like Black Hole in the Bumblebee Gravity Model,**  
[Physical Review D](#),  
arXiv:2001.02074, Jointly with Zonghai Li.
2. **Effect of Non-Linear Electrodynamics on Weak Field Deflection Angle by Black Hole,**  
[Physical Review D](#),  
arXiv:2005.09464, Jointly with Wajiha Javed and Ali Hamza.
3. **Circular orbit of a particle and weak gravitational lensing,**  
[Physical Review D](#),  
arXiv:2006.13047,  
Jointly with Li Zonghai and Zhang Guodong.
4. **Exact traversable wormhole solution in bumblebee gravity,**  
[Physical Review D](#),  
arXiv: :1804.09911, Jointly with Kimet Jusufi and Izzet Sakalli.
5. **Effect of the Brane-Dicke coupling parameter on weak gravitational lensing by wormholes and naked singularities,**  
[Physical Review D](#),  
arXiv: 1903.11657, Jointly with Wajiha Javed and Rimsha Babar.
6. **Weak gravitational lensing of regular black holes with cosmic strings using the Gauss-Bonnet theorem,**  
[Physical Review D](#),  
arXiv:1902.04411.
7. **Effect of the hair on deflection angle by asymptotically flat black holes in Einstein-Maxwell-dilaton theory,**  
[Physical Review D](#),  
arXiv:1908.03742, Jointly with Wajiha Javed and Jameela Abbas.
8. **Effect of the dilaton field on deflection angle of massive photons by Black Holes in Einstein-Maxwell-Dilaton-Axion Theory,**  
[Physical Review D](#),  
arXiv:1910.11697, Jointly with Wajiha Javed and Rimsha Babar.
9. **Light deflection by Damour-Solodukhin wormholes and Gauss-Bonnet theorem,**  
[Physical Review D](#),  
arXiv: 1805.06296.
10. **Holographic Thermodynamics of Accelerating Black Holes,**  
[Physical Review D](#),  
arXiv: :1805.02687, Jointly with Andres Anabalón, Michael Appels, Ruth Gregory, David Kubiznak, Robert B. Mann.

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11. **Gravitational Lensing by Rotating Wormholes**,  
[Physical Review D](#),  
arXiv:1708.06725, Jointly with Kimet Jusufi.
  12. **Effect of the cosmological constant on the deflection angle by a rotating cosmic string**,  
[Physical Review D](#)  
arXiv:1712.01771, Jointly with Kimet Jusufi.
  13. **Deflection of light by rotating regular black holes using the Gauss-Bonnet theorem**,  
[Physical Review D](#)  
arXiv: 1804:00643, Jointly with Kimet Jusufi, Joel Saavedra, Pablo A. Gonzalez and Yerko Vasquez.
  14. **Light Deflection by a Rotating Global Monopole Spacetime**,  
[Physical Review D](#), arXiv:1702.05600, Jointly with Ayan Banerjee, Kimet Jusufi, and Marcus C. Werner.
  15. **Effect of Lorentz Symmetry Breaking on the Deflection of Light in a Cosmic String Spacetime**,  
[Physical Review D](#), arXiv:1705.06197, Jointly with Kimet Jusufi and Izzet Sakalli.
  16. **Relativistic Bose-Einstein condensates thin-shell wormholes**,  
[Physical Review D](#), arXiv:1710.05886, Jointly with M. G. Richarte, I. G. Salako, J. P. Morais Graca and H. Moradpour.
  17. **Light Deflection by Charged Wormholes in Einstein-Maxwell-Dilaton Theory**,  
[Physical Review D](#), arXiv:1707.01416, Jointly with Kimet Jusufi and Ayan Banerjee.

## **PHYSICS LETTERS B**

1. **Black hole with confining electric potential in scalar-tensor description of regularized 4-dimensional Einstein-Gauss-Bonnet gravity**,  
[Physics Letters B](#),  
arXiv:2105.05035.
2. **Effect of the magnetic charge on weak deflection angle and greybody bound of the black hole in Einstein-Gauss-Bonnet gravity**,  
[Physics Letters B](#),  
Preprints 2021, 202111023. Jointly with Wajiha Javed and Muhammad Aqib.

## **CLASSICAL AND QUANTUM GRAVITY**

1. **Matter-antimatter asymmetry induced by non-linear electrodynamics**,  
[Classical and Quantum Gravity](#),  
arXiv:2105.07695,  
Jointly with Hachemi, Benaoum.
2. **Testing Generalized Einstein-Cartan-Kibble-Sciama Gravity using Weak Deflection Angle and Shadow Cast**,  
[Classical and Quantum Gravity](#),  
arXiv:2005.00982,  
Jointly with Izzet Sakalli.

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## **JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS**

1. **Shadow cast and deflection angle of Kerr-Newman-Kasuya spacetime,**  
[Journal of Cosmology and Astroparticle Physics](#)  
arXiv:1807.00388, Jointly with Izzet Sakalli and Joel Saavedra.
2. **Inflation from a nonlinear magnetic monopole field nonminimally coupled to curvature,**  
[Journal of Cosmology and Astroparticle Physics](#)  
arXiv: 1803.11358, Jointly with Giovanni Otalora, Joel Saavedra and Nelson Videla.
3. **Nonlinear electrodynamics effects on the black hole shadow, deflection angle, quasinormal modes and greybody factors,**  
[Journal of Cosmology and Astroparticle Physics](#),  
arXiv:2108.07766. Jointly with Okyay, Mert.

## **FORTSCHRITTE DER PHYSIK - PROGRESS OF PHYSICS**

1. **Traversable wormholes in the extended teleparallel theory of gravity with matter coupling,**  
[Fortschritte der Physik - Progress of Physics](#)  
arXiv:2104.13760, Jointly with G. Mustafa, Mushtaq Ahmad, M. Farasat Shamir and Ibrar Hussain.

## **EUROPEAN PHYSICAL JOURNAL C**

1. **Dark matter effect on the weak deflection angle by black holes at the center of Milky Way and M87 galaxies,**  
[The European Physical Journal C](#),  
arXiv:2201.03365. Jointly with Reggie C. Pantig.
2. **Motion and collision of particles near DST Black holes,**  
[The European Physical Journal C](#),  
arXiv:1811.08551, Jointly with P. A. Gonzalez, Marco Olivares, Joel Saavedra and Yerko Vasquez.
3. **Deflection angle of photon from magnetized black hole and effect of nonlinear electrodynamics,**  
[The European Physical Journal C](#),  
arXiv:1908.09632, Jointly with Wajiha Javed and Jameela Abbas.
4. **Falsifying cosmological models based on a non-linear electrodynamics,**  
[The European Physical Journal C](#)  
arXiv:1709.09794, Jointly with Genly Leon, Juan Magana and Kimet Jusufi.
5. **Novel nonlinear electrodynamics black hole and related phenomena in the extended thermodynamics,**  
[The European Physical Journal C](#)  
arXiv:1807.10447, Jointly with Xiao-Mei Kuang and Bo Liu.
6. **Inflation and Acceleration of the Universe by Nonlinear Magnetic Monopole Fields,**  
[The European Physical Journal C](#), arXiv:1604.01837.

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7. **Charged Thin-shell Gravastars in Noncommutative Geometry**,  
[The European Physical Journal C](#), arXiv:1704.00603, Jointly with Ayan Banerjee and Kimet Jusufi.
  8. **The Effect of the Gauss-Bonnet term to Hawking Radiation from arbitrary dimensional Black Brane**,  
[The European Physical Journal C](#), arXiv:1707.00169, Jointly with Xiao-Mei Kuang and Joel Saavedra.
  9. **Thin-shell wormholes from the regular Hayward black hole**,  
[The European Physical Journal C](#),  
arXiv:1312.6665, Jointly with Mustafa Halilsoy and S.Habib Mazharimousavi.

## ANNALS OF PHYSICS

1. **Schwarzschild-like black hole with a topological defect in bumblebee gravity**,  
[Annals of Physics](#),  
arXiv:2012.02611, Jointly with Ibrahim Gullu.
2. **Shadow and weak deflection angle of extended uncertainty principle black hole surrounded with dark matter**,  
[Annals of Physics](#),  
arXiv:2104.04304, Jointly with Reggie C. Pantig, Paul K. Yu and Emmanuel T. Rodulfo.
3. **Deriving Hawking Radiation via Gauss-Bonnet Theorem**,  
[Annals of Physics](#),  
arXiv:1902.04465, Jointly with Izzet Sakalli.
4. **Effect of the Quintessential Dark Energy on Weak Deflection Angle by Kerr-Newmann Black Hole**,  
[Annals of Physics](#),  
arXiv:2007.16027, Jointly with Wajiha Javed and Jameela Abbas.
5. **Weak Gravitational lensing by phantom black holes and phantom wormholes using the Gauss-Bonnet theorem.**,  
[Annals of Physics](#),  
arXiv: 1806.03719, Jointly with Galin Gylchev and Kimet Jusufi.
6. **Weak gravitational lensing by Kerr-MOG Black Hole and Gauss-Bonnet theorem**,  
[Annals of Physics](#),  
arXiv:1806.06453, Jointly with Izzet Sakalli and Joel Saavedra.
7. **Quasinormal Modes and Greybody Factors of  $f(R)$  gravity minimally coupled to a cloud of strings in  $2 + 1$  Dimensions**,  
[Annals of Physics](#)  
arXiv:1801.02555, Jointly with Kimet Jusufi.
8. **Gravitational Lensing Under the Effect of Weyl and Bumblebee Gravities: Applications of Gauss-Bonnet Theorem**,  
[Annals of Physics](#)  
arXiv: 1805.09431. Jointly with Kimet Jusufi and Izzet Sakalli.

## GENERAL RELATIVITY AND GRAVITATION



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1. **Quantum Tunneling and Quasinormal Modes in the Spacetime of Alcubierre Warp Drive,**  
[General Relativity and Gravitation](#),  
arXiv:1709.03923, Jointly with Kimet Jusufi and Izzet Sakalli.
  2. **Hawking radiation and propagation of massive charged scalar field on a three-dimensional Godel black hole,**  
[General Relativity and Gravitation](#)  
arXiv:1711.01865. Jointly with Pablo A. Gonzalez, Joel Saavedra and Yerko Vasquez.
  3. **Analytical Solutions in a Cosmic String Born-Infeld-dilaton Black Hole Geometry: Quasinormal Modes and Quantization,**  
[General Relativity and Gravitation](#)  
arXiv: 1803.10583, Jointly with Kimet Jusufi and Izzet Sakalli.
  4. **Quantum Tunneling of Massive Spin-1 Particles From Non-stationary Metrics,**  
[General Relativity and Gravitation](#), arXiv:1507.01753, Jointly with Izzet Sakalli.

### **EPL**

1. **Hawking Radiation and Deflection of Light from Rindler Modified Schwarzschild Black Hole,**  
[EPL](#), arXiv:1702.04636, Jointly with Izzet Sakalli.
2. **Uninformed Hawking Radiation,**  
[EPL](#), arXiv:1409.5539, Jointly with Izzet Sakalli.

### **PHYSICS OF THE DARK UNIVERSE**

1. **Black Hole Shadow in Symmergent Gravity,**  
[Physics of the Dark Universe](#),  
arXiv:2110.11904,  
Jointly with İrfan Çimdiker, Durmuş Demir.

### **THE EUROPEAN PHYSICAL JOURNAL PLUS**

1. **Evolving topologically deformed wormholes supported in the dark matter halo,**  
[The European Physical Journal Plus](#),  
arXiv:1803.04256.
2. **Weak deflection angle of Kazakov-Solodukhin black hole in plasma medium using Gauss-bonnet theorem and its greybody bonding,**  
[The European Physical Journal Plus](#),  
Jointly with Wajiha Javed and Iqra Hussain.
3. **Epicyclic frequencies and stability of thin-shell around the traversable phantom wormholes in Rastall gravity,**  
[The European Physical Journal Plus](#).  
Jointly with F. Javed, G. Mustafa and M. Farasat Shamir.
4. **Weak Gravitational Lensing by Stringy Black Holes,**  
[The European Physical Journal Plus](#),  
arXiv:2004.00408, Jointly with Wajiha Javed, Muhammad Bilal Khadim and Jameela Abbas.

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5. **Weak gravitational lensing by Bocharova-Bronnikov-Melnikov-Bekenstein black holes using Gauss-Bonnet theorem,**  
[The European Physical Journal Plus](#),  
arXiv:2007.14844,  
Jointly with Wajiha Javed and Muhammad Bilal Khadim.
  6. **Gravitational lensing by wormholes supported by electromagnetic, scalar, and quantum effects,**  
[The European Physical Journal Plus](#),  
arXiv:1802.07680, Jointly with Kimet Jusufi, Izzet Sakalli and Ayan Banerjee.
  7. **Tunneling of Massive Vector Particles from Types of BTZ-like Black Holes,**  
[The European Physical Journal Plus](#),  
arXiv: 1910.07949, Jointly with Wajiha Javed , Riasat Ali and Rimsha Babar.
  8. **The Effect of GUP to Massive Vector and Scalar Particles Tunneling From a Warped DGP Gravity BH,**  
[The European Physical Journal Plus](#), arXiv:1703.08073, Jointly with Kimet Jusufi.
  9. **Stability of Effective Thin-shell Wormholes Under Lorentz Symmetry Breaking Supported by Dark Matter and Dark Energy,**  
[The European Physical Journal Plus](#), arXiv:1706.07656, Jointly with Kimet Jusufi.
  10. **Anisotropic stellar models admitting conformal motion,**  
[The European Physical Journal Plus](#), arXiv:1702.06825, Jointly with A. Banerjee, S. Banerjee, and S. Hansraj.
  11. **Black hole radiation of massive spin-2 particles in (3+1) dimensions,**  
[The European Physical Journal Plus](#), arXiv:1605.02689, Jointly with Izzet Sakalli.
  12. **Rotating Thin-Shell Wormhole,**  
[The European Physical Journal Plus](#), arXiv:1604.08477.
  13. **Massive vector particles tunneling from noncommutative charged black holes and their GUP-corrected thermodynamics,**  
[The European Physical Journal Plus](#), arXiv:1512.05268, Jointly with Kimet Jusufi.
  14. **Tunnelling of vector particles from Lorentzian wormholes in 3+1 dimensions,**  
[The European Physical Journal Plus](#), arXiv:1505.02093, Jointly with Izzet Sakalli.

## **INTERNATIONAL JOURNAL OF GEOMETRIC METHODS IN MODERN PHYSICS**

1. **Weak deflection angle of light in two classes of black holes in non-linear electrodynamics via Gauss-Bonnet theorem,**  
[International Journal of Geometric Methods in Modern Physics](#),  
arXiv:2008.06711 , Jointly with Hasan El Mounni and Karima Masmar.

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2. **Quasinormal modes of dS and AdS Black Holes: Feedforward neural network method,**  
[International Journal of Geometric Methods in Modern Physics](#)  
arXiv:1904.09509, Jointly with Izzet Sakalli, Halil Mutuk.
  3. **Weak Deflection Angle by Asymptotically Flat Black Holes in Horndeski Theory Using Gauss-Bonnet Theorem,**  
[International Journal of Geometric Methods in Modern Physics](#)  
arXiv:2102.02812, Jointly with Wajiha Javed, Jameela Abbas, Yashmitha Kumaran.
  4. **PV criticality of AO black hole in the presence of higher order quantum and GUP corrections,**  
[International Journal of Geometric Methods in Modern Physics,](#)  
arXiv:1811.02193, Jointly with Behnam Pourhassan, and Izzet Sakalli.
  5. **Weak Gravitational Lensing by Einstein-Non-Linear-Maxwell-Yukawa Black Hole,**  
[International Journal of Geometric Methods in Modern Physics](#)  
arXiv:2009.11082, Jointly with Wajiha Javed and Muhammad Bilal Khadim.
  6. **Light Deflection by Quantum Improved Kerr Black Holes Pierced by a Cosmic String,**  
[International Journal of Geometric Methods in Modern Physics,](#)  
arXiv:1707.02824, Jointly with Kimet Jusufi.
  7. **Gravitational Lensing Effect on the Hawking Radiation of Dyonic Black Holes,**  
[International Journal of Geometric Methods in Modern Physics,](#)  
arXiv:1405.5392, Jointly with Izzet Sakalli and Seyedeh Fatemeh Mirekhtiary.

## CHINESE PHYSICS C

1. **Tunneling of Massive Vector Particles under the Influence of Quantum Gravity,**  
[Chinese Physics C,](#)  
arXiv:1909.02405, Jointly with Wajiha Javed, Riasat Ali, Rimsha Babar.
2. **Weak Deflection Angle of Extended Uncertainty Principle Black Holes,**  
[Chinese Physics C,](#)  
arXiv:1905.11710, Jointly with Yashmitha Kumaran.
3. **Effect of null aether field on weak deflection angle of black holes,**  
[Chinese Physics C,](#)  
arXiv:1908.04261, Jointly with Izzet Sakalli and Joel Saavedra.
4. **Quasinormal modes of Schwarzschild Black Hole Immersed In an Electromagnetic Universe,**  
[Chinese Physics C](#)  
arXiv:1708.08331, Jointly with Izzet Sakalli and Joel Saavedra.

## INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS

1. **Eruptive Massive Vector Particles of 5-Dimensional Kerr Godel Space-time,**  
[International Journal of Theoretical Physics,](#)  
arXiv:1705.00061, Jointly with Izzet Sakalli.

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2. **Hawking radiation of scalar and vector particles from 5D Myers-Perry black holes,**  
[International Journal of Theoretical Physics](#), arXiv:1610.07069, Jointly with Kimet Jusufi.
  3. **Entangled Particles Tunneling From a Schwarzschild Black Hole immersed in an Electromagnetic Universe with GUP,**  
[International Journal of Theoretical Physics](#), arXiv:1508.04100.

### **ASTROPHYSICS AND SPACE SCIENCE**

1. **GUP Assisted Hawking Radiation of Rotating Acoustic Black Holes,**  
[Astrophysics and Space Science](#), arXiv:1602.04304, Jointly with Izzet Sakalli and Kimet Jusufi.
2. **Tunneling of Massive Vector Particles From Rotating Charged Black Strings,**  
[Astrophysics and Space Science](#), arXiv:1512.08023, Jointly with Kimet Jusufi.
3. **Existence of traversable wormholes in the spherical stellar systems,**  
[Astrophysics and Space Science](#), arXiv:1509.01237, Jointly with Mustafa Halilsoy.
4. **Gravitinos Tunneling From Traversable Lorentzian Wormholes,**  
[Astrophysics and Space Science](#), arXiv:1506.00599, Jointly with Izzet Sakalli.

### **THE JOURNAL OF EXPERIMENTAL AND THEORETICAL PHYSICS**

1. **Hawking Radiation of Spin-1 Particles From Three Dimensional Rotating Hairy Black Hole,**  
[The Journal of Experimental and Theoretical Physics](#), arXiv:1503.01316, Jointly with Izzet Sakalli.

### **JOURNAL OF ASTROPHYSICS AND ASTRONOMY**

1. **Hawking Radiation of Mass Generating Particles from Dyonic Reissner Nordstrom Black Hole,**  
[Journal of Astrophysics and Astronomy](#), arXiv:1601.04040, Jointly with Izzet Sakalli.

### **MODERN PHYSICS LETTERS A**

1. **Effect of the GUP on the Hawking Radiation of Black hole in 2+1 Dimensions with Quintessence and Charged BTZ-like,**  
[Modern Physics Letters A](#),  
Preprints 2019, 201908, Jointly with Rimsha Babar and Wajiha Javed.
2. **Shadow cast of non-commutative black holes in Rastall gravity,**  
[Modern Physics Letters A](#),  
arXiv:1906.05954, Jointly with Izzet Sakalli, Joel Saavedra and Carlos Leiva.
3. **Weak Deflection Angle by Casimir Wormhole Using Gauss-Bonnet Theorem and Its Shadow,**  
[Modern Physics Letters A](#),  
arXiv:2101.04515, Jointly with Wajiha Javed and Ali Hamza.

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4. **Hawking radiation from cubic and quartic black holes via tunneling of GUP corrected scalar and fermion particles,**  
[Modern Physics Letters A](#),  
arXiv: 1808.09795, Jointly with Wajiha Javed and Riasat Ali.
  5. **Charged fermions tunneling from stationary axially symmetric black holes with generalized uncertainty principle,**  
[Modern Physics Letters A](#),  
arXiv:1812.01983, Jointly with Muhammad Rizwan and Muhammad Zubair Ali.
  6. **Thin-Shell Wormholes in Neo-Newtonian theory,**  
[Modern Physics Letters A](#), arXiv:1702.06823, Jointly with Ines Godonou Salako.
  7. **Canonical Acoustic Thin-Shell Wormholes,**  
[Modern Physics Letters A](#), arXiv:1612.03749, Jointly with Kimet Jusufi.

### **CANADIAN JOURNAL OF PHYSICS**

1. **Weak and Strong Warm Logamediate Anisotropic Inflationary Universe Model,**  
[Canadian Journal of Physics](#)  
Preprints 2019, 2019060252, Jointly with Wajiha Javed, Iqra Nawazish and Mohsin Raza Khan.
2. **Formation of Wormholes by Dark Matter in the Galaxy Dragonfly 44,**  
[Canadian Journal of Physics](#)  
arXiv:1806.01135, Jointly with Sayeedul Islam, Farook Rahaman and Mustafa Halilsoy.
3. **Particle Acceleration by Static Black Holes in a Model of  $f(R)$  Gravity,**  
[Canadian Journal of Physics](#), arXiv:1507.00633, Jointly with Mustafa Halilsoy.

### **THEORETICAL AND MATHEMATICAL PHYSICS**

1. **On a Particular Thin-shell Wormhole,**  
[Theoretical and Mathematical Physics](#), arXiv:1507.03949, Jointly with Izzet Sakalli.

### **ADVANCES IN HIGH ENERGY PHYSICS**

1. **P-V criticality of a specific black hole in  $f(R)$  gravity coupled with Yang-Mills field,**  
[Advances in High Energy Physics](#)  
arXiv:1710.06795.
2. **Tunneling of Glashow-Weinberg-Salam model particles from Black Hole Solutions in Rastall Theory,**  
[Advances in High Energy Physics](#)  
arXiv:1710.06264, Jointly with Wajiha Javed and Riasat Ali.
3. **The Bekenstein-Hawking Corpuscular Cascading from the Backreacted Black Hole,**  
[Advances in High Energy Physics](#), arXiv:1609.07804.

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4. **Particle Collision near 1+1- Dimensional Horava-Lifshitz Black Hole and Naked Singularity**,  
[Advances in High Energy Physics](#), arXiv:1504.03840, Jointly with Mustafa Halilsoy.
  5. **Tunneling of Massive/Massless Bosons From the Apparent Horizon of FRW Universe**,  
[Advances in High Energy Physics](#), arXiv:1703.02372, Jointly with Kimet Jusufi and Gordana Apostolovska.
  6. **Stable Dyonic Thin-shell Wormholes in String Theory**,  
[Advances in High Energy Physics](#), arXiv:1611.07501, Jointly with Kimet Jusufi.

### UNIVERSE

1. **Deflection angle of photon through dark matter by black holes and wormholes using the Gauss-Bonnet theorem**,  
[Universe \(invited\): Special Issue "Gravitational Lensing and Optical Geometry: A Centennial Perspective"](#)  
arXiv:1806.05549.
2. **Weak Deflection angle and Shadow by Tidal Charged Black Hole**,  
[Universe \(invited\)"](#)  
arXiv:2110.11397, Jointly with Wajiha Javed and Ali Hamza.

### NEW ASTRONOMY

1. **Bounding greybody and deflection angle of improved Schwarzschild black hole**,  
[New Astronomy](#),  
Preprints 2021, 2021110273, Jointly with Wajiha Javed and Muhammad Aqib.

### INDIAN JOURNAL OF PHYSICS

1. **Cosmology with variable G and nonlinear electrodynamics**,  
[Indian Journal of Physics](#)  
arXiv:2104.11066, Jointly with Gabriel W. Joseph.

### TURKISH JOURNAL OF PHYSICS

1. **Invited Article: Weak Deflection Angle of Black-bounce Traversable Wormholes Using Gauss-Bonnet Theorem in the Dark Matter Medium**,  
[Turkish Journal of Physics](#)  
arXiv:2008.06711.
2. **Invited Review: Deriving Weak Deflection Angle by Black Holes or Wormholes using Gauss-Bonnet Theorem**,  
[Turkish Journal of Physics](#)  
arXiv:2111.02805,  
Jointly with Yashmitha Kumaran.

### Thesis

1. Ph.D Thesis Studies on Thin-shells and Thin-shell Wormholes. arXiv:1610.08118.
2. M.Sc Thesis Dark Matter: Modification of f(R) or Wimps Miracle. arXiv:1301.5371.

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## **TUBITAK AND OTHER INTERNATIONAL PROJECTS REFEREED**

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- TUBITAK UPAG - Uluslararası Isbirligi Projeleri Arastirma Destek Grubu Projeleri
- TUBITAK 1001 - Bilimsel ve Teknolojik Arastırma Projelerini
- TUBITAK 1002 - Hızlı Destek Programı
- TUBITAK BİDEB 2021 Bilim İnsani Destekleme Programları Doktora Sonrası Arastirmaci Projeleri
- TUBITAK 2218- Yurt İci Doktora Sonrası Arastirma Burs Programi

## **JOURNALS REFEREED**

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1. Physical Review D
2. Classical and Quantum Gravity
3. Physics Letters B
4. The European Physical Journal C
5. Nuclear Physics B
6. Journal of Cosmology and Astroparticle Physics
7. Journal of Physics Communications
8. Annals of physics
9. Annalen der Physik
10. The European Physical Journal Plus
11. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences
12. EPL (Europhysics Letters)
13. Physics of the Dark Universe
14. General Relativity and Gravitation
15. Gravitation and Cosmology
16. International Journal of Theoretical Physics
17. International Journal of Geometric Methods in Modern Physics
18. Canadian Journal of Physics
19. Physics of the Dark Univers
20. Universe
21. Entropy

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22. Galaxies
  23. Symmetry
  24. Computation
  25. Frontiers in Physics
  26. Indian Journal of Physics
  27. Advances in High Energy Physics
  28. Modern Physics Letters A
  29. International Journal of Modern Physics D
  30. International Journal of Modern Physics A
  31. Physica Scripta
  32. Astrophysics and Space Science
  33. Journal of Physics A Mathematical and Theoretical
  34. Mugla Journal of Science and Technology
  35. Sakarya University Journal of Science
  36. Turkish Journal of Physics

## **JOURNALS EDITOR**

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1. Turkish Journal of Physics
2. Review Editor: Frontiers in Physics: Special Issue on Quasinormal Modes in Relativistic Stars and Black Holes
3. Review Editor: Frontiers in Physics: High-Energy and Astroparticle Physics
4. Guest Associate Editor: Frontiers in Physics: in Stellar and Solar Physics

## **TEACHING EXPERIENCE**

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Teaching Assistant in Physics Department at Eastern Mediterranean University (as an MSc and PhD student) for undergraduate students studying in the departments of Engineering, Mathematics, Molecular Biology and Genetics, and Pharmacy. Taken part as a tutor in both the laboratory and tutorial sessions of the courses provided below

**PHYS101**

2011-2016

*Physics I: Mechanics for scientists and engineers,*

**PHYS102**

2011-2016

*Physics II: Thermodynamics and Electromagnetism for scientists and engineers,*

**PHYS111**

2011-2016

*Principles of Physics for Pharmacy Department,*



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**FIZK103** 2011-2016  
*Fizik I: Mekanik,*

**FIZK104** 2011-2016  
*Fizik II: Termodinamik, Elektromanyetizma,*

Lecturer in Physics Department at Eastern Mediterranean University (as being a PhD student, Part-time Faculty Member and then Full-time Faculty Member ) for undergraduate/graduate students from a variety of different departments.

**PHYS101** 2015-Now  
*Physics I: Mechanics for scientists and engineers,*

**PHYS102** 2018-Now  
*Physics II: Thermodynamics and Electromagnetism for scientists and engineers,*

**PHYS111** 2015-Now  
*Principles of Physics for Pharmacy Department,*

**PHYS201** 2018-Now  
*Physics III: Modern Physics for scientists and engineers,*

**FIZK101** 2015-Now  
*Matematik Lisans Programı Fizik I: Mekanik, Elektromanyetizma,*

**FIZK102** 2015-Now  
*Matematik Lisans Programı Fizik II: Termodinamik, Elektromanyetizma,*

**FIZK103** 2015-Now  
*İnşaat Mühendisliği Lisans Programı (Türkçe) Bilgisayar Mühendisliği Lisans Programı (Türkçe) Fizik I: Mekanik,*

**FIZK104** 2015-Now  
*İnşaat Mühendisliği Lisans Programı (Türkçe) Bilgisayar Mühendisliği Lisans Programı (Türkçe) Fizik II: Termodinamik, Elektromanyetizma,*

**FIZK105** 2015-Now  
*Radyoterapi Önlisans Programı (Türkçe) Temel Fizik,*

**FIZK109** 2018-Now  
*Fizyoterapi ve Rehabilitasyon Lisans Programı (Türkçe) Temel Fizik,*

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**FIZK201**

2015-Now

*İlköğretim Matematik Öğretmenliği Lisans Programı (Türkçe) Fizik I: Mekanik,*

**FIZK202**

2015-Now

*İlköğretim Matematik Öğretmenliği Lisans Programı (Türkçe) Fizik II,*

**FIZK203**

2015-Now

*Sınıf Öğretmenliği Lisans Programı (Türkçe) Fizik I,*

**FIZK205**

2015-Now

*Bilgisayar ve Öğretim Teknolojileri Öğretmenliği Lisans Programı (Türkçe) Fizik II,*

**PHYS503**

2016-Now

*Introduction to Cosmology,*

## **TOTAL 106 PUBLICATIONS IN PEER REVIEWED JOURNALS**

Sort (Newest to Oldest)

**2022**

1. Nonlinear electrodynamic effects on the black hole shadow, deflection angle, quasinormal modes and greybody factors, [Journal of Cosmology and Astroparticle Physics](#), arXiv:2108.07766. Jointly with Okyay, Mert.
2. Dark matter effect on the weak deflection angle by black holes at the center of Milky Way and M87 galaxies, [The European Physical Journal C](#), arXiv:2201.03365. Jointly with Reggie C. Pantig.
3. Effect of the magnetic charge on weak deflection angle and greybody bound of the black hole in Einstein-Gauss-Bonnet gravity, [Physics Letters B](#), Preprints 2021, 202111023. Jointly with Wajiha Javed and Muhammad Aqib.
4. Weak deflection angle of Kazakov-Solodukhin black hole in plasma medium using Gauss-bonnet theorem and its greybody bonding, [The European Physical Journal Plus](#), Jointly with Wajiha Javed and Iqra Hussain.
5. Epicyclic frequencies and stability of thin-shell around the traversable phantom wormholes in Rastall gravity, [The European Physical Journal Plus](#). Jointly with F. Javed, G. Mustafa and M. Farasat Shamir.

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6. **Schwarzschild-like black hole with a topological defect in bumblebee gravity,**  
[Annals of Physics](#),  
arXiv:2012.02611, Jointly with Ibrahim Gullu.
  7. **Shadow and weak deflection angle of extended uncertainty principle black hole surrounded with dark matter,**  
[Annals of Physics](#),  
arXiv:2104.04304, Jointly with Reggie C. Pantig, Paul K. Yu and Emmanuel T. Rodulfo.
  8. **Weak deflection angle of light in two classes of black holes in non-linear electrodynamics via Gauss-Bonnet theorem,**  
[International Journal of Geometric Methods in Modern Physics](#),  
arXiv:2008.06711 , Jointly with Hasan El Moumni and Karima Masmar.
  9. **Bounding greybody and deflection angle of improved Schwarzschild black hole,**  
[New Astronomy](#),  
Preprints 2021, 2021110273, Jointly with Wajiha Javed and Muhammad Aqib.

## 2021

1. **Black hole with confining electric potential in scalar-tensor description of regularized 4-dimensional Einstein-Gauss-Bonnet gravity,,**  
[Physics Letters B](#),  
arXiv:2105.05035.
2. **Evolving topologically deformed wormholes supported in the dark matter halo,**  
[The European Physical Journal Plus](#),  
arXiv:1803.04256.
3. **Matter-antimatter asymmetry induced by non-linear electrodynamics,**  
[Classical and Quantum Gravity](#),  
arXiv:2105.07695,  
Jointly with Hachemi, Benaoum.
4. **Black Hole Shadow in Symmergent Gravity,**  
[Physics of the Dark Universe](#),  
arXiv:2111.02805,  
Jointly with İrfan Çimdiker, Durmuş Demir.
5. **Traversable wormholes in the extended teleparallel theory of gravity with matter coupling,**  
[Fortschritte der Physik - Progress of Physics](#),  
arXiv:2104.13760,  
Jointly with Ghulam Mustafa, Mushtaq Ahmad, M. Farasat Shamir and Ibrar Hussain.
6. **Weak Deflection Angle by Asymptotically Flat Black Holes in Horndeski Theory Using Gauss-Bonnet Theorem,**  
[International Journal of Geometric Methods in Modern Physics](#),  
arXiv:2102.02812, Jointly with Wajiha Javed, Jameela Abbas, Yashmitha Kumaran.

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7. **Quasinormal modes of dS and AdS Black Holes: Feedforward neural network method**,  
[International Journal of Geometric Methods in Modern Physics](#),  
arXiv:1904.09509,  
Jointly with Izzet Sakalli, Halil Mutuk.
  8. **Weak Deflection angle and Shadow by Tidal Charged Black Hole, Universe (invited)**,  
arXiv:2110.11397, Jointly with Wajiha Javed and Ali Hamza.
  9. **Cosmology with variable G and nonlinear electrodynamics**,  
[Indian Journal of Physics](#),  
arXiv:2104.11066, Jointly with Gabriel W. Joseph.
  10. **Invited Review: Deriving Weak Deflection Angle by Black Holes or Wormholes using Gauss-Bonnet Theorem**,  
[Turkish Journal of Physics](#),  
arXiv:2111.02805,  
Jointly with Yashmitha Kumaran.

## 2020

1. **Finite-Distance Gravitational Deflection of Massive Particles by the Kerr-like Black Hole in the Bumblebee Gravity Model**,  
[Physical Review D](#),  
arXiv:2001.02074, Jointly with Zonghai Li.
2. **Effect of Non-Linear Electrodynamics on Weak Field Deflection Angle by Black Hole**,  
[Physical Review D](#),  
arXiv:2005.09464, Jointly with Wajiha Javed and Ali Hamza.
3. **Circular orbit of a particle and weak gravitational lensing**,  
[Physical Review D](#),  
arXiv:2006.13047,  
Jointly with Li Zonghai and Zhang Guodong.
4. **Testing Generalized Einstein-Cartan-Kibble-Sciama Gravity using Weak Deflection Angle and Shadow Cast**,  
[Classical and Quantum Gravity](#),  
arXiv:2005.00982,  
Jointly with Izzet Sakalli.
5. **Tunneling of Massive Vector Particles under the Influence of Quantum Gravity**,  
[Chinese Physics C](#),  
arXiv:1909.02405, Jointly with Wajiha Javed, Riasat Ali, Rimsha Babar.
6. **Weak Deflection Angle of Extended Uncertainty Principle Black Holes**,  
[Chinese Physics C](#),  
arXiv:1905.11710, Jointly with Yashmitha Kumaran.
7. **Effect of null aether field on weak deflection angle of black holes**,  
[Chinese Physics C](#),  
arXiv:1908.04261, Jointly with Izzet Sakalli and Joel Saavedra.

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8. **Deriving Hawking Radiation via Gauss-Bonnet Theorem,**  
[Annals of Physics](#),  
arXiv:1902.04465, Jointly with Izzet Sakalli.
  9. **Effect of the Quintessential Dark Energy on Weak Deflection Angle by Kerr-Newmann Black Hole,**  
[Annals of Physics](#),  
arXiv:2007.16027, Jointly with Wajiha Javed and Jameela Abbas.
  10. **Weak Gravitational Lensing by Stringy Black Holes,**  
[The European Physical Journal Plus](#),  
arXiv:2004.00408, Jointly with Wajiha Javed, Muhammad Bilal Khadim and Jameela Abbas.
  11. **Weak gravitational lensing by Bocharova-Bronnikov-Melnikov-Bekenstein black holes using Gauss-Bonnet theorem,**  
[The European Physical Journal Plus](#),  
arXiv:2007.14844,  
Jointly with Wajiha Javed and Muhammad Bilal Khadim.
  12. **Effect of the GUP on the Hawking Radiation of Black hole in 2+1 Dimensions with Quintessence and Charged BTZ-like,**  
[Modern Physics Letters A](#),  
Preprints 2019, 201908, Jointly with Rimsha Babar and Wajiha Javed.
  13. **Shadow cast of non-commutative black holes in Rastall gravity,**  
[Modern Physics Letters A](#),  
arXiv:1906.05954, Jointly with Izzet Sakalli, Joel Saavedra and Carlos Leiva.
  14. **Weak Deflection Angle by Casimir Wormhole Using Gauss-Bonnet Theorem and Its Shadow,**  
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arXiv:2101.04515, Jointly with Wajiha Javed and Ali Hamza.
  15. **Weak and Strong Warm Logamediate Anisotropic Inflationary Universe Model,**  
[Canadian Journal of Physics](#)  
Preprints 2019, 2019060252, Jointly with Wajiha Javed, Iqra Nawazish and Mohsin Raza Khan.
  16. **PV criticality of AO black hole in the presence of higher order quantum and GUP corrections,**  
[International Journal of Geometric Methods in Modern Physics](#),  
arXiv:1811.02193, Jointly with Mubasher Jamil, Behnam Pourhassan, and Izzet Sakalli.
  17. **Weak Gravitational Lensing by Einstein-Non-Linear-Maxwell-Yukawa Black Hole,**  
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arXiv:2009.11082, Jointly with Wajiha Javed and Muhammad Bilal Khadim.
  18. **Weak Deflection Angle of Black-bounce Traversable Wormholes Using Gauss-Bonnet Theorem in the Dark Matter Medium,**  
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arXiv:2008.06711.

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2019

1. **Exact traversable wormhole solution in bumblebee gravity,**  
[Physical Review D](#),  
arXiv: :1804.09911, Jointly with Kimet Jusufi and Izzet Sakalli.
2. **Effect of the Brane-Dicke coupling parameter on weak gravitational lensing by wormholes and naked singularities,**  
[Physical Review D](#),  
arXiv: 1903.11657, Jointly with Wajiha Javed and Rimsha Babar.
3. **Weak gravitational lensing of regular black holes with cosmic strings using the Gauss-Bonnet theorem,**  
[Physical Review D](#),  
arXiv:1902.04411.
4. **Effect of the hair on deflection angle by asymptotically flat black holes in Einstein-Maxwell-dilaton theory,**  
[Physical Review D](#),  
arXiv:1908.03742, Jointly with Wajiha Javed and Jameela Abbas.
5. **Effect of the dilaton field on deflection angle of massive photons by Black Holes in Einstein-Maxwell-Dilaton-Axion Theory,**  
[Physical Review D](#),  
arXiv:1910.11697, Jointly with Wajiha Javed and Rimsha Babar.
6. **Motion and collision of particles near DST Black holes,**  
[The European Physical Journal C](#),  
arXiv:1811.08551, Jointly with P. A. Gonzalez, Marco Olivares, Joel Saavedra and Yerko Vasquez.
7. **Deflection angle of photon from magnetized black hole and effect of nonlinear electrodynamics,**  
[The European Physical Journal C](#),  
arXiv:1908.09632, Jointly with Wajiha Javed and Jameela Abbas.
8. **Weak Gravitational lensing by phantom black holes and phantom wormholes using the Gauss-Bonnet theorem.,**  
[Annals of Physics](#),  
arXiv: 1806.03719, Jointly with Galin Gylchev and Kimet Jusufi.
9. **Weak gravitational lensing by Kerr-MOG Black Hole and Gauss-Bonnet theorem,**  
[Annals of Physics](#),  
arXiv:1806.06453, Jointly with Izzet Sakalli and Joel Saavedra.
10. **Gravitational lensing by wormholes supported by electromagnetic, scalar, and quantum effects,**  
[The European Physical Journal Plus](#),  
arXiv:1802.07680, Jointly with Kimet Jusufi, Izzet Sakalli and Ayan Banerjee.
11. **Tunneling of Massive Vector Particles from Types of BTZ-like Black Holes,**  
[The European Physical Journal Plus](#),  
arXiv: 1910.07949, Jointly with Wajiha Javed , Riasat Ali and Rimsha Babar.

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12. **Hawking radiation from cubic and quartic black holes via tunneling of GUP corrected scalar and fermion particles,**  
[Modern Physics Letters A](#),  
arXiv: 1808.09795, Jointly with Wajiha Javed and Riasat Ali.
  13. **Charged fermions tunneling from stationary axially symmetric black holes with generalized uncertainty principle,**  
[Modern Physics Letters A](#),  
arXiv:1812.01983, Jointly with Muhammad Rizwan and Muhammad Zubair Ali.
  14. **Formation of Wormholes by Dark Matter in the Galaxy Dragonfly 44,**  
[Canadian Journal of Physics](#)  
arXiv:1806.01135, Jointly with Sayeedul Islam, Farook Rahaman and Mustafa Halilsoy.
  15. **Light Deflection by Quantum Improved Kerr Black Holes Pierced by a Cosmic String,**  
[International Journal of Geometric Methods in Modern Physics](#),  
arXiv:1707.02824, Jointly with Kimet Jusufi.
  16. **Deflection angle of photon through dark matter by black holes and wormholes using the Gauss-Bonnet theorem,**  
[Universe: Special Issue "Gravitational Lensing and Optical Geometry: A Centennial Perspective"](#)  
arXiv:1806.05549.

## 2018

1. **Light deflection by Damour-Solodukhin wormholes and Gauss-Bonnet theorem,**  
[Physical Review D](#),  
arXiv: 1805.06296.
2. **Holographic Thermodynamics of Accelerating Black Holes,**  
[Physical Review D](#),  
arXiv: :1805.02687, Jointly with Andres Anabalón, Michael Appels, Ruth Gregory, David Kubiznak, Robert B. Mann.
3. **Gravitational Lensing by Rotating Wormholes,**  
[Physical Review D](#),  
arXiv:1708.06725, Jointly with Kimet Jusufi.
4. **Effect of the cosmological constant on the deflection angle by a rotating cosmic string,**  
[Physical Review D](#)  
arXiv:1712.01771, Jointly with Kimet Jusufi.
5. **Deflection of light by rotating regular black holes using the Gauss-Bonnet theorem,**  
[Physical Review D](#)  
arXiv: 1804:00643, Jointly with Kimet Jusufi, Joel Saavedra, Pablo A. Gonzalez and Yerko Vasquez.
6. **Inflation from a nonlinear magnetic monopole field nonminimally coupled to curvature,**

- 
- Journal of Cosmology and Astroparticle Physics**  
arXiv: 1803.11358, Jointly with Giovanni Otalora, Joel Saavedra and Nelson Videla.
7. **Shadow cast and deflection angle of Kerr-Newman-Kasuya spacetime,**  
**Journal of Cosmology and Astroparticle Physics**  
arXiv:1807.00388, Jointly with Izzet Sakalli and Joel Saavedra.
  8. **Falsifying cosmological models based on a non-linear electrodynamics,**  
**The European Physical Journal C**  
arXiv:1709.09794, Jointly with Genly Leon, Juan Magana and Kimet Jusufi.
  9. **Novel nonlinear electrodynamics black hole and related phenomena in the extended thermodynamics,**  
**The European Physical Journal C**  
arXiv:1807.10447, Jointly with Xiao-Mei Kuang and Bo Liu.
  10. **Quasinormal modes of Schwarzschild Black Hole Immersed In an Electromagnetic Universe,**  
**Chinese Physics C**  
arXiv:1708.08331, Jointly with Izzet Sakalli and Joel Saavedra.
  11. **Quasinormal Modes and Greybody Factors of  $f(R)$  gravity minimally coupled to a cloud of strings in  $2 + 1$  Dimensions,**  
**Annals of Physics**  
arXiv:1801.02555, Jointly with Kimet Jusufi.
  12. **Gravitational Lensing Under the Effect of Weyl and Bumblebee Gravities: Applications of Gauss-Bonnet Theorem,**  
**Annals of Physics**  
arXiv: 1805.09431. Jointly with Kimet Jusufi and Izzet Sakalli.
  13. **Quantum Tunneling and Quasinormal Modes in the Spacetime of Alcubierre Warp Drive,**  
**General Relativity and Gravitation,**  
arXiv:1709.03923, Jointly with Kimet Jusufi and Izzet Sakalli.
  14. **Hawking radiation and propagation of massive charged scalar field on a three-dimensional Godel black hole,**  
**General Relativity and Gravitation**  
arXiv:1711.01865. Jointly with Pablo A. Gonzalez, Joel Saavedra and Yerko Vasquez.
  15. **Analytical Solutions in a Cosmic String Born-Infeld-dilaton Black Hole Geometry: Quasinormal Modes and Quantization,**  
**General Relativity and Gravitation**  
arXiv: 1803.10583, Jointly with Kimet Jusufi and Izzet Sakalli.
  16. **Eruptive Massive Vector Particles of 5-Dimensional Kerr Godel Spacetime,**  
**International Journal of Theoretical Physics,**  
arXiv:1705.00061, Jointly with Izzet Sakalli.
  17. **P-V criticality of a specific black hole in  $f(R)$  gravity coupled with Yang-Mills field,**  
**Advances in High Energy Physics**  
arXiv:1710.06795.



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18. **Tunneling of Glashow-Weinberg-Salam model particles from Black Hole Solutions in Rastall Theory,**  
[Advances in High Energy Physcs](#)  
arXiv:1710.06264, Jointly with Wajiha Javed and Riasat Ali.

2017

1. **Light Deflection by a Rotating Global Monopole Spacetime,**  
[Physical Review D](#), arXiv:1702.05600, Jointly with Ayan Banerjee, Kimet Jusufi, and Marcus C. Werner.
2. **Effect of Lorentz Symmetry Breaking on the Deflection of Light in a Cosmic String Spacetime,**  
[Physical Review D](#), arXiv:1705.06197, Jointly with Kimet Jusufi and Izzet Sakalli.
3. **Relativistic Bose-Einstein condensates thin-shell wormholes,**  
[Physical Review D](#), arXiv:1710.05886, Jointly with M. G. Richarte, I. G. Salako, J. P. Morais Graca and H. Moradpour.
4. **Light Deflection by Charged Wormholes in Einstein-Maxwell-Dilaton Theory,**  
[Physical Review D](#), arXiv:1707.01416, Jointly with Kimet Jusufi and Ayan Banerjee.
5. **Inflation and Acceleration of the Universe by Nonlinear Magnetic Monopole Fields,**  
[The European Physical Journal C](#), arXiv:1604.01837.
6. **Charged Thin-shell Gravastars in Noncommutative Geometry,**  
[The European Physical Journal C](#), arXiv:1704.00603, Jointly with Ayan Banerjee and Kimet Jusufi.
7. **The Effect of the Gauss-Bonnet term to Hawking Radiation from arbitrary dimensional Black Brane,**  
[The European Physical Journal C](#), arXiv:1707.00169, Jointly with Xiao-Mei Kuang and Joel Saavedra.
8. **Hawking Radiation and Deflection of Light from Rindler Modified Schwarzschild Black Hole,**  
[EPL](#), arXiv:1702.04636, Jointly with Izzet Sakalli.
9. **Hawking radiation of scalar and vector particles from 5D Myers-Perry black holes,**  
[International Journal of Theoretical Physics](#), arXiv:1610.07069, Jointly with Kimet Jusufi.
10. **The Effect of GUP to Massive Vector and Scalar Particles Tunneling From a Warped DGP Gravity BH,**  
[The European Physical Journal Plus](#), arXiv:1703.08073, Jointly with Kimet Jusufi.
11. **Stability of Effective Thin-shell Wormholes Under Lorentz Symmetry Breaking Supported by Dark Matter and Dark Energy,**  
[The European Physical Journal Plus](#), arXiv:1706.07656, Jointly with Kimet Jusufi.

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12. **Anisotropic stellar models admitting conformal motion**,  
[The European Physical Journal Plus](#), arXiv:1702.06825, Jointly with A. Banerjee, S. Banerjee, and S. Hansraj.
  13. **The Bekenstein-Hawking Corpuscular Cascading from the Backreacted Black Hole**,  
[Advances in High Energy Physics](#), arXiv:1609.07804.
  14. **Particle Collision near 1+1- Dimensional Horava-Lifshitz Black Hole and Naked Singularity**,  
[Advances in High Energy Physics](#), arXiv:1504.03840, Jointly with Mustafa Halilsoy.
  15. **Tunneling of Massive/Massless Bosons From the Apparent Horizon of FRW Universe**,  
[Advances in High Energy Physics](#), arXiv:1703.02372, Jointly with Kimet Jusufi and Gordana Apostolovska.
  16. **Stable Dyonic Thin-shell Wormholes in String Theory**,  
[Advances in High Energy Physics](#), arXiv:1611.07501, Jointly with Kimet Jusufi.
  17. **On a Particular Thin-shell Wormhole**,  
[Theoretical and Mathematical Physics](#), arXiv:1507.03949, Jointly with Izzet Sakalli.
  18. **Particle Acceleration by Static Black Holes in a Model of  $f(R)$  Gravity**,  
[Canadian Journal of Physics](#), arXiv:1507.00633, Jointly with Mustafa Halilsoy.
  19. **Thin-Shell Wormholes in Neo-Newtonian theory**,  
[Modern Physics Letters A](#), arXiv:1702.06823, Jointly with Ines Godonou Salako.
  20. **Canonical Acoustic Thin-Shell Wormholes**,  
[Modern Physics Letters A](#), arXiv:1612.03749, Jointly with Kimet Jusufi.

## 2016

1. **Black hole radiation of massive spin-2 particles in (3+1) dimensions**,  
[The European Physical Journal Plus](#), arXiv:1605.02689, Jointly with Izzet Sakalli.
2. **Rotating Thin-Shell Wormhole**,  
[The European Physical Journal Plus](#), arXiv:1604.08477.
3. **GUP Assisted Hawking Radiation of Rotating Acoustic Black Holes**,  
[Astrophysics and Space Science](#), arXiv:1602.04304, Jointly with Izzet Sakalli and Kimet Jusufi.
4. **Tunneling of Massive Vector Particles From Rotating Charged Black Strings**,  
[Astrophysics and Space Science](#), arXiv:1512.08023, Jointly with Kimet Jusufi.
5. **Massive vector particles tunneling from noncommutative charged black holes and their GUP-corrected thermodynamics**,  
[The European Physical Journal Plus](#), arXiv:1512.05268, Jointly with Kimet Jusufi.

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6. **Hawking Radiation of Mass Generating Particles from Dyonic Reissner Nordstrom Black Hole,**  
[Journal of Astrophysics and Astronomy](#), arXiv:1601.04040, Jointly with Izzet Sakalli.
  7. **Existence of traversable wormholes in the spherical stellar systems,**  
[Astrophysics and Space Science](#), arXiv:1509.01237, Jointly with Mustafa Halilsoy.
  8. **Entangled Particles Tunneling From a Schwarzschild Black Hole immersed in an Electromagnetic Universe with GUP,**  
[International Journal of Theoretical Physics](#), arXiv:1508.04100.
  9. **Quantum Tunneling of Massive Spin-1 Particles From Non-stationary Metrics,**  
[General Relativity and Gravitation](#), arXiv:1507.01753, Jointly with Izzet Sakalli.

#### 2015

1. **Gravitinos Tunneling From Traversable Lorentzian Wormholes,**  
[Astrophysics and Space Science](#), arXiv:1506.00599, Jointly with Izzet Sakalli.
2. **Tunnelling of vector particles from Lorentzian wormholes in 3+1 dimensions,**  
[The European Physical Journal Plus](#), arXiv:1505.02093, Jointly with Izzet Sakalli.
3. **Hawking Radiation of Spin-1 Particles From Three Dimensional Rotating Hairy Black Hole,**  
[The Journal of Experimental and Theoretical Physics](#), arXiv:1503.01316, Jointly with Izzet Sakalli.
4. **Uninformed Hawking Radiation,**  
[EPL](#), arXiv:1409.5539, Jointly with Izzet Sakalli.

#### 2014

1. **Gravitational Lensing Effect on the Hawking Radiation of Dyonic Black Holes,**  
[International Journal of Geometric Methods in Modern Physics](#), arXiv:1405.5392, Jointly with Izzet Sakalli and Seyedeh Fatemeh Mirekhtiary.
2. **Thin-shell wormholes from the regular Hayward black hole,**  
[The European Physical Journal C](#), arXiv:1312.6665, Jointly with Mustafa Halilsoy and S.Habib Mazharimousavi.

## **VOLUNTEER EXPERIENCES**

- Head of IYTE Physics Society, (2007-2010).

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## NEWS

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1. **Space.com:** Is Time Travel Possible? Scientists Explore the Past and Future
2. **DISCOVERY NEWS:** Wormhole Wonders: Hunting Down Spacetime Shortcuts
3. **SPACE.COM:** Chasing Wormholes: The Hunt for Tunnels in Space-Time
4. **TUBITAK BILIM VE TEKNIS DERGISI (Kasim 2015):** Samanyolu Gokadasinda Solucan Deligi Olasiligi.
5. **EMU NEWS:** Important Research Findings from EMU Physics Department Academic Staff Member and PhD Student.
6. **EMU NEWS:** EMU Physics Program PhD Student Publishes an Article on Hawking Radiation.
7. **EMU NEWS:** EMU Physics Department Academic Staff Members Sakalli and Ovgun's Article Becomes the Most Read Publication in Cyprus.
8. **EMU NEWS:** Important Accomplishment From EMU Department of Physics Academician.
9. **EMU NEWS:** EMU Graduate Dr. Ali Ovgun To Work at CERN
10. **KIBRIS GAZETESI:** DAU Akademisyeninden Buyuk Basari.
11. **KIBRIS GAZETESI:** DAU Ogretim Gorevlisi Avrupa Fizik Dergisi'nde
12. **KIBRIS GAZETESI:** DAU Mezunu, CERN'de Calisacak
13. **DAU HABER:** Dr. Ali Ovgun CERN'de Calisacak
14. **China DWnews**
15. **SecretChina**
16. **EMU NEWS:** Huge Success from Department of Physics Academic Staff Member Assist. Prof. Dr. Ali Övgün 2018
17. **EMU NEWS:** EMU Department of Physics Academic Staff Member Asst. Prof. Dr. Ali Övgün Receives Outstanding Reviewer Award 2019
18. **DETAY KIBRIS:** Yrd. Doç. Dr. Ali Övgün'e IOP CQG dergisinden 2019 üstün hakem ödülü
19. **EMU NEWS:** 12 EMU Academic Staff Members Listed Among the World's Most Influential Scientists
20. **DETAY KIBRIS:** Dünyanın En Etkili Bilim İnsanları Listesinde DAÜ Fen Ve Edebiyat Fakültesi'nden 5 Akademisyen Yer Aldı
21. **EMU NEWS:** 14 Academics from EMU Appear in the World's Most Influential Scientists List in Stanford University's Study
22. **KIBRIS GAZETESI:** DAÜ'den 14 akademisyen 'Dünyanın En Etkili Bilim İnsanları' listesinde yer aldı
23. **YENİ ŞAFAK:** DAÜ'den 13 akademisyen Stanford Üniversitesi'nin araştırmasında dünyanın en etkili Bilim İnsanları listesinde yer aldı

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## **CONFERENCES & SUMMER SCHOOLS**

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- 2007-May, Eskisehir/Turkey, UFOK-III (3rd National Student Conference of Turkish Physical Society).
- 2007-July, Karlsruhe/Germany, Conference & Summer School- SUSY07.
- 2007-August, Bodrum/Turkey, ISCBPU-V (5th International Student Conference of Balkan Physical Union).
- 2008-July, ICTP Trieste/Italy, Summer School-COSMOLOGY 08.
- 2008-September, Akyaka-Mugla/Turkey, ISSCSMB08 International Summer School and Conference on Standard Model and Beyond (organized by METU, TUBITAK and ICTP).
- 2009-June, METU Ankara/Turkey, UFOK-5 (5th National Student Conference of Turkish Physical Society).
- 2009-July, TUBITAK Feza Gursev Theoretical Physics Institute Istanbul/Turkey, IARS II. National Summer Student School on High Energy Physics (YEF09).
- 2009-July, TUBITAK Feza Gursev Theoretical Physics Institute Istanbul/Turkey, Lectures on Neutrino Mass and Grand Unified Theories by Goran Senjanovic (ICTP).
- 2009-August, Ambleside- Lancaster/UK, Linear Collider Physics School 2009.
- 2009-August, Akyaka-Mugla/Turkey, ISSCSMB09 International Summer School and Conference on Standard Model and Beyond(organized by METU, TUBITAK and ICTP).
- 2012-April, METU NCC-N.Cyprus, Workshop on Recent Developments in High Energy Physics.
- 2013-April, Koc University, Istanbul/Turkey, 12th Quantization, Dualities and Integrable Systems.
- 2013-May, METU NCC-N.Cyprus, Workshop on Recent Developments in High Energy Physics.
- 2014-April, Koc University, Istanbul/Turkey, 13th Quantization, Dualities and Integrable Systems.
- 2015-May, EMU Famagusta,N.Cyprus, 14th Quantization, Dualities and Integrable Systems.
- 2015-July, FIAS Frankfurt/Germany, 2nd Karl Schwarzschild Meeting on Gravitational Physics.
- 2017-November, Mini-courses on Black hole Chemistry, Prof. Robert Mann, PUCV, CHILE.
- 2017-November, Gravity at UCEN 2017: Black holes and Cosmology. Universidad Central de Chile, Santiago.
- 2017-November, SCHOOL ON NUMERICAL METHODS IN GRAVITY AND HOLOGRAPHY by L.Lehrer, T.Andrade and S.Green. Universidad de Concepcion, Chile.

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- 2017-November/December, Sixth Meeting of CosmoConce 2017, Universidad del Bio-Bio, campus Concepcion, Chile.
  - From Qubits to Spacetime, Prospects in Theoretical Physics 2018, July 2018, Institute for Advanced Study, Princeton, USA.
  - 2019-January, 2. Yüksek Enerji Fiziği, Astrofizik ve Kozmoloji Çalıştayı 2019 (YEFAK2019), Istanbul University, TURKEY.
  - 2019-March, The 2nd Physics Days 2019, EMU Famagusta, N.CYPRUS.
  - 2021 February, 4. Yüksek Enerji Fiziği, Astrofizik ve Kozmoloji Çalıştayı 2021 (YEFAK2021), Istanbul University, TURKEY.
  - 2021 March, Chairing of the session at International Webinar on Recent Developments in Cosmology and Modified Gravity (RDCM-2021), BITS-Pilani, INDIA.
  - 2021 March, Invited speaker at IUCSS Workshop on Gravitational Aspects of Lorentz Violation, Indiana University, Bloomington USA.
  - 2021 March, Speaker at Beyond Standard Model: From Theory to Experiment (BSM-2021), The Center for Fundamental Physics (CFP) at Zewail City of Science and Technology and Faculty of Engineering and Natural Sciences at Sabancı University.
  - 2021 May, Chairing of the session at Fourth Summer School and Workshop on the Lorentz- and CPT-violating Standard-Model Extension, Indiana University, Bloomington USA.
  - 2021 August, Chairing of the session at GRAVITEX 2021 Durban, KwaZulu-Natal, South Africa.
  - 2021 October, Chairing of the session at 27th International Conference of International Academy Physical Sciences on Advances in Relativity and Cosmology (PARC-2021).

## **TALKS**

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- Weak field deflection angle by regular black holes with cosmic strings, Beyond Standard Model: From Theory to Experiment (BSM-2021), The Center for Fundamental Physics (CFP) at Zewail City of Science and Technology and Faculty of Engineering and Natural Sciences at Sabancı University, March 2021.
- Black Hole with Global Monopole and Wormhole Solutions in Bumblebee Gravity, IUCSS Workshop on Gravitational Aspects of Lorentz Violation, Indiana University, Bloomington USA, March 2021.
- Testing Modified Gravity Theories Using Weak Deflection Angle and Black Hole Shadow, RDCM-2021, BITS-Pilani, India, March 2021.
- Weak Deflection angle of Extended Uncertainty Principle Black holes, with my PhD Student Yashmitha Kumaran RDCM-2021, BITS-Pilani, India, March 2021.
- Zayıf Sapma Açısı ve Kara Delik Gölgesini Kullanarak Modifiye Yerçekim Teorilerini Test Etmek, YEFAK2021, Istanbul University, Turkey, February 2021.
- Light Deflection by Blackholes/Wormholes Using Gauss-Bonnet Theorem, The 2nd Physics Days 2019, EMU, Famagusta, N. Cyprus, March 2019.

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- Weak gravitational lensing and Gibbons-Werner method, YEFAK2019, Istanbul University, Turkey, January 2019.
  - Light Detection by Wormholes and Gibbons-Werner method, Department of Physics and Astronomy, University of Waterloo, Canada, 15 January 2018.
  - Thin-shell Wormholes/Gravastars. Universidad del Bio-Bio, campus Concepcion, Chile. 2017-November/December. Sixth Meeting of CosmoConce 2017.
  - Hidden gates in universe: Wormholes. Universidad Central de Chile, Santiago. November 2017, Gravity at UCEN 2017: Black holes and Cosmology,
  - Thin-shell Wormholes and Gravastars, Universidad de Valparaiso (UV), Chile, November 2017, Seminarios Astrofisicos.
  - Thin-shell Wormholes and Gravastars, Pontificia Universidad Catolica de Valparaiso (PUCV), Chile, September 2017, Seminario del grupo de Gravitacion, Cosmologia y Astrofisica.
  - Particle Collision near 1+1 Dimensional Horava-Lifshitz Black Holes, FIAS Frankfurt, Germany July 2015, Workshop KSM2015.
  - Particle Collision near 1+1 Dimensional Horava-Lifshitz Black Holes, EMU/N.Cyprus, May 2015, Workshop QDIS14.
  - Thin-shell wormholes from the regular Hayward black hole, Koc University Istanbul/Turkey, April 2014, Workshop QDIS13.
  - Thin-shell wormholes from the regular Hayward black hole, IYTE Izmir/Turkey, Jan 2014, Seminar.
  - Thin-shell wormholes from the regular Hayward black hole, EMU/N.Cyprus, Dec 2013, Seminar.
  - Dark Matter Modification of  $f(R)$  or Wimps Miracle, EMU/N.Cyprus, Jan 2013, Master Thesis Defense.
  - The Mystery of Mass, Eskisehir/Turkey, May 2007, 3rd National Conference of Physics Students (UFOK-3).
  - The Dark Side of the Cosmos, Izmir/Turkey, December 2008, IYTE Physics Society.
  - String Theory, METU Ankara/Turkey, June 2009 , 5th National Conference of Physics Students (UFOK-5).

## REFERENCES

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1. **Durmus A. DEMIR Professor** Sabancı University, Istanbul, Turkey. Tel: +90 216 568 7042, E-mails: durmus.demir@sabanciuniv.edu
2. **Mustafa HALILSOY Professor** Department of Physics, EMU N. Cyprus, Tel: +90-392-6301314, E-mail: mustafa.halilsoy@emu.edu.tr
3. **Joel SAAVEDRA Professor** Vice-Rector of Research and Advanced Studies, PUCV, Chile, Tel: +56 32 2273444, E-mail: joel.saavedra@pucv.cl
4. **Eduardo GUENDELMAN Professor** Department of Physics, Ben-Gurion University of the Negev, Beer-Sheva, Israel E-mail: guendel@bgumail.bgu.ac.il

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5. **Robert MANN Professor** Department of Physics and Astronomy University of Waterloo University Avenue West Waterloo, Ontario, Canada, E-mail: rbmann@uwaterloo.ca
  6. **Douglas SINGLETON Professor** Interim Department Chairman of Physics, California State University, Fresno, USA, E-mail: dougs@csufresno.edu