



Mert MANGUT

PERSONAL DETAILS

Date of Birth February 4, 1993
Place of Birth Beyoglu(Istanbul)/Turkey
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RESEARCH INTEREST

Mathematical or theoretical physics, mathematical general relativity, gravitational waves, classical and quantum singularities, quantum field theory, statistical physics, black holes, functional analysis, topology and differential geometry.

ACADEMIC EXPERIENCES

Lecturer and Researcher in Physics 2023 - Now
Eastern Mediterranean University, G. Magusa, North Cyprus

Research and Teaching Assistant in Physics 2018 - 2023
Eastern Mediterranean University, G. Magusa, North Cyprus

EDUCATION

PhD. in Physics 2018 - 2023
Eastern Mediterranean University, G. Magusa, North Cyprus
Thesis: The Physics of Non-spherical Compact Objects

Supervisor : Prof. Dr. İzzet SAKALLI
Co-supervisor : Prof. Dr. Özey GÜRTUĞ

MSc. in Mathematics 2016 - 2018
Maltepe University, Istanbul, Turkey

Thesis: Mathematical Foundations of Quantum Singularity Analysis: Applications in Horava-Lifshitz Theory

Supervisor : Prof. Dr. Özey GÜRTUĞ

BSc. in Mathematics 2012 - 2015

Istanbul University, Istanbul, Turkey

BSc. in Physics

2011 - 2015

Istanbul University, Istanbul, Turkey

TEACHING EXPERIENCE

1) Teaching Assistant (Tutor) in Physics at EMU for undergraduate students studying in the departments of Engineering, Medicine, Mathematics and Physics. (as being PhD student)

PHYS101

2019 - 2023

Physics I: Mechanics

PHYS102

2019 - 2023

Physics II: Thermodynamics and Electromagnetism

PHYS103

2020 - 2023

Introductory Physics

FIZK103

2019 - 2023

Fizik I: Mekanik

FIZK104

2019 - 2023

Fizik II: Termodinamik ve Elektromanyetizm

PHYS204

2022 - 2023

Modern Physics

PHYS101, PHYS102, PHYS111, PHYS109, FIZK109

FIZK103, PHYS204 and FIZK104

2019 - 2023

Lab. Sessions

2) Lecturer in Physics at EMU for undergraduate students studying in the departments of Engineering, Mathematics and Architecture. (as being PhD student)

Table 1: Teaching

Course	Academic Year	Term	Weekly Hour (Lecture and Tutorial)		
FIZK 103	2020-2021	Spring	6	4	2
FIZK 103	2021-2022	Spring	6	4	2
PHYS 101 (Gr:03/11)	2022-2023	Fall	6	4	2
FIZK 103	2022-2023	Fall	6	4	2

3) Lecturer in Physics at EMU for undergraduate students studying in the departments of Engineering, Mathematics and Architecture. (as being Faculty Member)

Table 2: Teaching

Course	Academic Year	Term	Weekly Hour (Lecture and Tutorial)		
FIZK 104	2023-2024	Fall	6	4	2
FIZK 109 (Gr:02/01)	2023-2024	Fall/Spring	6	4	2
PHYS 101 (Gr:03/09)	2022-2023	Fall	6	4	2
FIZK 103	2023-2024	Spring	6	4	2
PHYS 102 (Gr:06)	2023-2024	Spring	6	4	2
PHYS 212	2023-2024	Spring	6	4	2
PHYS 102	2023-2024	Summer	10	8	2

PUBLICATIONS IN PEER REVIEWED JOURNALS

1. O. Gurtug and M. Mangut, ”Quantum Probe of Hořava-Lifshitz Gravity”, Journal of Mathematical Physics 59, 042503, (2018).
2. O. Gurtug and M. Mangut, ”Effect of power-law Maxwell field to the gravitational lensing”, Physical Review D 99, 084003, (2019).
3. O. Gurtug and M. Mangut, ”Gravitational Lensing in a Model of Nonlinear Electrodynamics: The Case for Electrically and Magnetically Charged Compact Objects”, Annalen der Physik 532, 3, 1900576, (2020).
4. M. Mangut and O. Gurtug , ”Quantum probe of time-like naked singularities for electrically and magnetically charged black holes in a model of nonlinear electrodynamics”, Modern Physics Letters A 35, 29, 2050242, (2020).
5. H. Gürsel, M. Mangut and I. Sakallı , ”Holographic Dissipative Properties of Non-relativistic Black Branes with Hyperscaling Violation”, Eur. Phys. J. Plus 136, 9 (2021).
6. O. Gurtug, M. Mangut and M. Halilsoy , ”Gravitational Lensing in Rotating and Twisting Universes”, Astroparticle Physics, 128, 102558 (2021).
7. O. Gurtug, M. Halilsoy and M. Mangut , ”The charged Zipoy–Voorhees metric with astrophysical applications”, Eur. Phys. J. C, 82, 671 (2022).
8. M. Mangut , H. Gürsel and I. Sakallı , ”Gravitational lensing in Kerr–Newman anti de Sitter spacetime”, Astroparticle Physics, 102763 (2022).
9. M. Mangut , H. Gürsel, S. Kanzi and I. Sakallı , ”Probing the Lorentz Invariance Violation via Gravitational Lensing and Analytical Eigenmodes of Perturbed Slowly Rotating Bumblebee Black Holes”, Universe, 9(5), 225 (2023).
10. O. Gurtug, M. Halilsoy and M. Mangut , ”Probing naked singularities in the charged and uncharged γ – metrics with quantum wave packets”, General Relativity and Gravitation, vol. 55, no. 98, 2023.
11. M. Halilsoy, M. Mangut and Chia-Li Hsieh , ”Stationary, charged Zipoy–Voorhees metric from colliding wave spacetime”, General Relativity and Gravitation, vol.55 , no.103 , 2023.

12. M. Halilsoy, Chia-Li Hsieh and M. Mangut , "Colliding null matter with a specific stress tensor", Physica Scripta, vol. 99, no: 3, 035023 , 2024.

13. M. Mangut, O. Gürtuğ and I. Sakallı , "On thermal fluctuations and quantum regularities of $\mathcal{F}(R, \mathcal{G})$ gravity black holes with constant topological Euler density in nonlinear electrodynamics", Physica Scripta, vol. 99, no: 5, 055005, 2024.

RELEVANT EXPERIENCE

Speaker and Organization Committee Member at EMU 3rd Astronomy Workshop **Aug. 2024**

Eastern Mediterranean University, G. Magusa, North Cyprus

Title: Heartbeats of Our Galaxy: The Evolutionary Journey of Stars

Organization Committee Member at EMU 2nd Astronomy and Space Science Club Seminar **May. 2024**

Eastern Mediterranean University, G. Magusa, North Cyprus

Title: A Brief Introduction to Cosmology by Prof. Lawrence M. Krauss

Organization Committee Member at EMU 1st Astronomy and Space Science Club Seminar **May. 2024**

Eastern Mediterranean University, G. Magusa, North Cyprus

Title: Discovering Our Universe: Past, Present and Future by Dr. Alex Lockwood

Speaker and Organization Committee Member at EMU 2nd Astronomy Workshop **Aug. 2023**

Eastern Mediterranean University, G. Magusa, North Cyprus

Title: The Internal Structure of Stars

Speaker at The Madrid Winter Workshop on Theoretical Physics **Dec. 2022**

Department of Theoretical Physics and the Instituto de Particulas y Fisica del Cosmos (IPARCOS) of the Complutense University of Madrid, Spain

Title: On Charged Zipoy-Voorhees Metrics

Speaker and Organization Committee Member at EMU 1st Astronomy Workshop **Aug. 2022**

Eastern Mediterranean University, G. Magusa, North Cyprus

Title: Stellar Evolution

Speaker at 19th Workshop on Quantization, Dualities and Integrable Systems **April -2021**

University of Turkish Aeronautical Association, Ankara, Turkey (online due to COVID-19)

Title: Effect of power-law Maxwell field to the gravitational lensing for using Rindler and Ishak method

Local Organization Committee Member at 2nd International Conference of

Mathematical Sciences

Maltepe University, Istanbul, Turkey

Analytic Topology and Applications; Functional Analysis; Sequences, series, summability;
Mathematical Methods in Physics

July 2018

Poster Presentation at Faculty of Science

Istanbul University, Istanbul, Turkey

Title: Quasi Periodic Oscillations in Reissner - Nordström Spacetime

June 2015

Summer school of Physics at Feza Gursey Institute

Bogazici University, Istanbul, Turkey

Aug. - 2013

Organization Committee Member at 3rd Physics Workshop

Istanbul University, Istanbul, Turkey

Astroparticles, High Energy Physics and Solid State Physics

Feb. - 2013

MEMBERSHIPS

1. American Mathematical Society (AMS).
2. Turkish Mathematical Society (TMS).

SCHOLARSHIPS, ACHIEVEMENTS & AWARDS

Honour Price & Nature Index-2022 Publications

Eastern Mediterranean University, G. Magusa, North Cyprus

April 2022

Honour Price & First Degree in Graduation, Institute of Science

Maltepe University, Istanbul, Turkey

June 2018

Honour Price & First Degree in Graduation, Faculty of Science

Istanbul University, Istanbul, Turkey

June 2015

Scholarship for Higher Education

TEV (Turkish Education Foundation)

2012 - 2015

Award of Achievement in Higher Education

TEV (Turkish Education Foundation)

2014 - 2015