



Mert MANGUT

PERSONAL DETAILS

Birth February 4, 1993
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RESEARCH INTEREST

Theoretical physics or mathematical physics, 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 GÜRTÜĞ

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 GÜRTÜĞ

BSc. in Mathematics 2012 - 2015
Istanbul University, Istanbul, Turkey

BSc. in Physics

Istanbul University, Istanbul, Turkey

2011 - 2015

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

Physics I: Mechanics

2019 - 2023

PHYS102

Physics II: Thermodynamics and Electromagnetism

2019 - 2023

PHYS103

Introductory Physics

2020 - 2023

FIZK103

Fizik I: Mekanik

2019 - 2023

FIZK104

Fizik II: Termodinamik ve Elektromanyetizm

2019 - 2023

PHYS204

Modern Physics

2022 - 2023

PHYS101, PHYS102, PHYS111, PHYS109, FIZK109

FIZK103, PHYS204 and FIZK104

Lab. Sessions

2019 - 2023

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)	2022-2023	Fall	6	4	2
PHYS 101 (Gr:11)	2022-2023	Fall	6	4	2
FIZK 103	2022-2023	Spring	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	2023-2024	Fall	6	4	2
PHYS 101 (Gr:03)	2022-2023	Fall	6	4	2
PHYS 101 (Gr:09)	2022-2023	Fall	6	4	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.

RELEVANT EXPERIENCE

Speaker and Organization Committee Member at EMU 2nd Astronomy Workshop

Aug .2023

Eastern Mediterranean University

Title: The Internal Structure of Stars

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

Departament 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

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 July 2018

Maltepe University, Istanbul, Turkey

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

Poster Presentation at Faculty of Science June 2015

Istanbul University, Istanbul, Turkey

Title: Quasi Periodic Oscillations in Reissner - Nordström Spacetime

Summer school of Physics at Feza Gursey Institute Aug. – 2013

Bogazici University, Istanbul, Turkey

Organization Committee Member at 3rd Physics Workshop Feb.-2013

Istanbul University, Istanbul, Turkey

Astroparticles, High Energy Physics and Solid State Physics

SCHOLARSHIPS, ACHIEVEMENTS & AWARDS

Honour Price & First Degree in Graduation, Institute of Science June 2018

Maltepe University, Istanbul, Turkey

Honour Price & First Degree in Graduation, Faculty of Science June 2015

Istanbul University, Istanbul, Turkey

Scholarship for Higher Education 2012 - 2015

TEV (Turkish Education Foundation)

Award of Achievement in Higher Education
TEV (Turkish Education Foundation)

2014 - 2015