

## Res. Asst. PhD Aylin ÇALIŞKAN

### Personal Information

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### International Researcher IDs

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### Education Information

Doctorate, Istanbul University, Faculty Of Science, Department Of Physics, Turkey 2021 - 2024

Postgraduate, Istanbul University, Faculty Of Science, Department Of Physics, Turkey 2017 - 2020

Undergraduate, Istanbul University, Faculty Of Science, Fizik, Turkey 2012 - 2016

### Foreign Languages

English, B1 Intermediate

### Certificates, Courses and Trainings

Vocational Training, FORMASYON, İstanbul Üniversitesi, 2015

### Dissertations

Doctorate, Structural analysis of anisotropic stars in modified theories of gravity, Istanbul University, Faculty Of Science, Department Of Physics, 2024

Postgraduate, Investigation of Deflection of Light Phenomena in Rotating Black Hole Space-Time, Istanbul University, Faculty Of Science, Department Of Physics, 2020

### Research Areas

Physics, Natural Sciences

### Academic Titles / Tasks

Research Assistant, Istanbul University, Faculty of Science, Department of Physics, 2019 - Continues

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

- I. **Particle dynamics with trajectories and epicyclic oscillations around a piece-wise black hole immersed in dark matter**  
ÇALIŞKAN A., Mustafa G., Naseer T., Maurya S., GÜDEKLİ E., Murodov S., Atamurotov F.  
Journal of High Energy Astrophysics, vol.44, pp.99-115, 2024 (SCI-Expanded)
- II. **Observational constraints on parameterized deceleration parameter with  $f(Q, T)$  gravity**  
Shekh S. H., Caliskan A., Mustafa G., Maurya S. K., Pradhan A., Gudekli E.  
International Journal of Geometric Methods in Modern Physics, vol.21, no.3, 2024 (SCI-Expanded)
- III. **Observational constraints on transit reconstructed Tsallis  $f(T)$  gravity**  
Shekh S. H., Mustafa G., Caliskan A., Gudekli E., Pradhan A.  
International Journal of Geometric Methods in Modern Physics, vol.20, no.12, 2023 (SCI-Expanded)
- IV. **A structural analysis of self-gravitating anisotropic stars via equation of state in modified teleparallel gravity**  
Jan M., Liu S., Basit A., Çalışkan A., Güdekli E.  
Results in Physics, vol.51, 2023 (SCI-Expanded)
- V. **New wormhole solutions using dark matter profiles with the signature of observational data in teleparallel gravity**  
Chen R., Mustafa G., Caliskan A., Gudekli E.  
International Journal of Geometric Methods in Modern Physics, vol.20, no.8, 2023 (SCI-Expanded)
- VI. **Traversable Wormhole in  $f(Q)$  Gravity Using Conformal Symmetry**  
Jan M., Ashraf A., Basit A., Caliskan A., Güdekli E.  
Symmetry, vol.15, no.4, 2023 (SCI-Expanded)
- VII. **Structural properties of a new class of stellar structures in modified teleparallel gravity**  
ÇALIŞKAN A., Zulqarnain R. M., GÜDEKLİ E., Siddique I., Ahmad H., Askar S.  
FRONTIERS IN ASTRONOMY AND SPACE SCIENCES, vol.10, 2023 (SCI-Expanded)
- VIII. **Thermal fluctuations, QNMs, and emission energy of charged ADS black hole with nonlinear electrostatics**  
Javed F., Basit A., ÇALIŞKAN A., GÜDEKLİ E.  
Frontiers in Astronomy and Space Sciences, vol.10, 2023 (SCI-Expanded)

## Refereed Congress / Symposium Publications in Proceedings

- I. **THE ROLE OF NON-COMMUTATIVE GEOMETRY IN RASTALL TELEPARALLEL GRAVITY**  
Cilli A., Çalışkan A., Güdekli E.  
TURKISH PHYSICAL SOCIETY 40TH INTERNATIONAL PHYSICS CONGRESS,, Muğla, Turkey, 2 - 06 September 2024, pp.242
- II. **Charged Wormhole Solutions in the Context of Modified Gravity**  
Aydın Z. D., Çalışkan A., Güdekli E.  
TURKISH PHYSICAL SOCIETY 40TH INTERNATIONAL PHYSICS CONGRESS, Muğla, Turkey, 2 - 06 September 2024, pp.417
- III. **INVESTIGATION OF WORMHOLE SOLUTIONS IN THE FRAMEWORK OF WEITZENBOCK GEOMETRY**  
Çalışkan A., Güdekli E.  
TURKISH PHYSICAL SOCIETY 39TH INTERNATIONAL PHYSICS CONGRESS, Muğla, Turkey, 31 August - 04 September 2023, pp.223
- IV. **Teleparalel Gravitasyonda Solucan Deliği Çözümlerinin Araştırılması**  
Çalışkan A., Güdekli E.  
9. Bilim Günleri, İstanbul, Turkey, 9 - 11 May 2023, pp.1
- V. **Perfect fluid LRS Bianchi type -I- Universe model in  $F(R, T)$**   
Gudekli E., Caliskan A.

34th International Physics Congress on Turkish Physical Society, TPS 2018, Konacik-Bodrum, Turkey, 5 - 09 September 2018, vol.2042

- VI. **PEPERFECT FLUID LRS BIANCHI UNIVERSE IN MYRZAKULOV GRAVITY**  
Çalışkan A., Güdeki E.  
34. TFD Conference, Muğla, Turkey, 5 - 09 September 2018, pp.367
- VII. **Black Holes And Gravitational Waves**  
Çalışkan A.  
34. TFD CONFERENCE, Muğla, Turkey, 5 - 09 September 2018, pp.302
- VIII. **BLACK HOLES AND GRAVITATIONAL WAVES**  
Daylan Esmer G., Çalışkan A.  
tfd, Muğla, Turkey, 5 - 09 September 2018, pp.510

## **Metrics**

Publication: 16

Citation (WoS): 23

Citation (Scopus): 30

H-Index (WoS): 3

H-Index (Scopus): 3

## **Congress and Symposium Activities**

9. Bilim Günleri, Attendee, İstanbul, Turkey, 2023