



# ERTAN GÜDEKLİ

## PROF.

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: J-4371-2019

ScopusID: 54880487300

Yoksis Researcher ID: 102320



## Biography

He is a faculty member at Istanbul University, Faculty of Science, Department of Physics, Mathematical Physics Department. He completed his undergraduate degree from Istanbul University, Faculty of Science, Department of Physics, and his master's and doctorate degrees from Istanbul University, Institute of Science, Mathematical Physics Program. Research Areas: General Theory of Relativity, Cosmology, Higher Order Gravitation Theories, Membrane-universe Models, Dynamical Systems.

## Learning Knowledge

Doctorate 1997 - 2004	Istanbul University, Fen Bilimleri, Fizik Programı Matematiksel Fizik Anabilim Dalı, Turkey
Postgraduate 1994 - 1997	Istanbul University, Fen Bilimleri, Fizik Programı Matematiksel Fizik Anabilim Dalı, Turkey
Undergraduate 1990 - 1994	Istanbul University, Faculty Of Science, Department Of Physics, Turkey

## Certificates, Courses and Trainings

Measurement and Evaluation, AUZEF SORU YAZMA CALISTAYI, İstanbul Üniversitesi, 2022

IT, MATLAB FUNDAMENTALS AND PROGRAMMING TECHNIQUES, SEM-ODTÜ TEKNOKENT, 2006

## Dissertations

Doctorate, Bianchi Tip Çözümlerde Ufuk-Eşyönlüleşme Meseleleri , Istanbul University, Fizik, Fizik Programı Matematiksel

Fizik Anabilim Dalı, 2004

Postgraduate, Homojen Evren Modellerinin Matematiksel Temelleri, Istanbul University, Fizik, Fizik Programı

Matematiksel Fizik Anabilim Dalı, 1997

## Academic Titles / Tasks

Professor  
2022 - Continues

Istanbul University, Faculty of Science, Department of Physics

Associate Professor  
2017 - 2022

Istanbul University, Faculty of Science, Department of Physics

Assistant Professor  
2008 - 2017

Istanbul University, Faculty of Science, Department of Physics

## Supported Projects

1. GÜDEKLİ E., Project Supported by Higher Education Institutions,  $f(R,G)$ -tipi Kozmolojilerde Dinamik Sistem Analizi, 2011 - 2015

## Awards

1. GÜDEKLİ E., 2019 YILI TÜRK FİZİK DERNEĞİ ONUR ÖDÜLÜ, Turkish Physical Society 35th International Physics Congress, September 2019

## Jury Memberships

Post Graduate, Post Graduate, İstanbul Üniversitesi, July, 2024

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, İstanbul Üniversitesi, July, 2024

Doctorate, Doctorate, İstanbul Üniversitesi, July, 2024

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, İstanbul Üniversitesi, June, 2024

Doctoral Examination, Doctoral Examination, İstanbul Üniversitesi-Cerrahpaşa, May, 2024

Appointment to Academic Staff-Professorship, Appointment to Academic Staff-Professorship, Çanakkale Onsekiz Mart Üniversitesi, March, 2024

Appointment to Academic Staff - Associate Professorship, Appointment to Academic Staff - Associate Professorship, İstanbul Üniversitesi, March, 2024

Appointment to Academic Staff-Professorship, Appointment to Academic Staff-Professorship, İstanbul Üniversitesi, March, 2024

Doctorate, Doctorate, İstanbul Üniversitesi, February, 2024

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, İstanbul Üniversitesi, February, 2024

Appointment to Academic Staff-Professorship, Appointment to Academic Staff-Professorship, Yıldız Teknik Üniversitesi, January, 2024

Post Graduate, Post Graduate, İstanbul Yeni Yüzyıl Üniversitesi, January, 2024

Post Graduate, Post Graduate, İstanbul Üniversitesi, January, 2024

Doctoral Examination, Doctoral Examination, İstanbul Üniversitesi, November, 2023

Doctoral Examination, Doctoral Examination, İstanbul Üniversitesi, November, 2023  
Doctoral Examination, Doctoral Examination, İstanbul Üniversitesi, November, 2023  
Post Graduate, Post Graduate, İstanbul Üniversitesi, June, 2023  
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, İstanbul Üniversitesi, June, 2023  
Doctoral Examination, Doctoral Examination, Yıldız Teknik Üniversitesi, May, 2023  
Appointment to Academic Staff - Associate Professorship, Appointment to Academic Staff - Associate Professorship, Çanakkale Onsekiz Mart Üniversitesi, February, 2023  
Doctoral Examination, Doctoral Examination, İstanbul Üniversitesi, January, 2023  
Doctoral Examination, Doctoral Examination, Çanakkale Onsekiz Mart Üniversitesi, July, 2022  
Doctoral Examination, Doctoral Examination, İstanbul Üniversitesi, June, 2022  
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, İstanbul Üniversitesi, June, 2022  
Doctoral Examination, Doctoral Examination, İstanbul Üniversitesi, June, 2022  
Post Graduate, Post Graduate, İstanbul Üniversitesi, June, 2022  
Doctorate, Doctorate, İstanbul Üniversitesi, February, 2022  
Doctorate, Doctorate, İstanbul Üniversitesi, February, 2022  
Doctoral Examination, Doctoral Examination, Çanakkale Onsekiz Mart Üniversitesi, January, 2022  
Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, İstanbul Yeni Yüzyıl Üniversitesi, January, 2022  
Post Graduate, Post Graduate, İstanbul Üniversitesi, January, 2022  
Doctoral Examination, Doctoral Examination, Çanakkale Onsekiz Mart Üniversitesi, January, 2022  
Post Graduate, Post Graduate, İstanbul Üniversitesi, December, 2021  
Post Graduate, Post Graduate, İstanbul Üniversitesi, November, 2021  
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, University of Delhi, August, 2021  
Doctorate, Doctorate, Çanakkale Onsekiz Mart Üniversitesi, August, 2021  
Post Graduate, Post Graduate, İstanbul Üniversitesi, August, 2021  
Doctoral Examination, Doctoral Examination, İstanbul Üniversitesi, July, 2021  
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, İstanbul Üniversitesi, July, 2021  
Doctorate, Doctorate, İstanbul Üniversitesi, June, 2019  
Doctorate, yüksek lisans, Onsekiz Mart Üniversitesi, June, 2018  
Doctorate, Doktora , Onsekiz Mart Üniversitesi, June, 2018  
Post Graduate, Yüksek Lisans, İstanbul Üniversitesi Fen Bilimleri Enstitüsü, May, 2018  
Post Graduate, Jüri Üyesi, İstanbul Üniversitesi Fen Bilimler Enstitüsü, June, 2016  
Post Graduate, Jüri Üyesi, İstanbul Ün. Fen Bilimleri Enstitüsü, May, 2013  
Post Graduate, Jüri Üyesi, İstanbul Ün. Fen Bilimleri Enstitüsü, May, 2013  
Post Graduate, Jüri Üyesi, İstanbul Fen Bilimler Enstitüsü, November, 2012

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

- 1. Observational signature of QPOs with particle motion around non-commutative Schwarzschild black hole surrounded by perfect fluid dark matter**  
Mustafa G., Demir E., Davlataliev A., Chaudhary H., Atamurotov F., GÜDEKLİ E.  
Physics of the Dark Universe, vol.46, 2024 (SCI-Expanded)
- 2. Optical properties of Euler-Heisenberg black hole surrounded by perfect fluid dark matter**  
YILDIZ G., Ditta A., Ashraf A., GÜDEKLİ E., Alanazi Y. M., Reyimberganov A.  
PHYSICS OF THE DARK UNIVERSE, vol.46, 2024 (SCI-Expanded)
- 3. Epicyclic oscillations and particle collision with trajectories around quantum corrected black holes**  
Mustafa G., Demir E., Javed F., Maurya S., GÜDEKLİ E., Murodov S., Atamurotov F.  
Physics of the Dark Universe, vol.46, 2024 (SCI-Expanded)
- 4. Orbital motion, epicyclic oscillations, and collision of particles around conformally coupled charged**

## black hole

Mustafa G., YILDIZ G., Javed F., Maurya S., GÜDEKLİ E., Atamurotov F.  
Physics of the Dark Universe, vol.46, 2024 (SCI-Expanded)

5. **Joule-Thomson expansion, motion of particles and QPOs around Bardeen-AdS black hole immersed in a fluid of strings**  
Mustafa G., Javed F., Maurya S., Alkarni S., Donmez O., ÇİLLİ A., GÜDEKLİ E.  
Journal of High Energy Astrophysics, vol.44, pp.437-456, 2024 (SCI-Expanded)
6. **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)
7. **Observational analysis of late-time acceleration in  $f(Q, L_m)$  gravity**  
Myrzakulov K., Koussour M., Donmez O., ÇİLLİ A., GÜDEKLİ E., Rayimbaev J.  
Journal of High Energy Astrophysics, vol.44, pp.164-171, 2024 (SCI-Expanded)
8. **Orbital motion and QPOs testing around rotating Hairy black holes in Horndeski gravity**  
Güdekli E.  
PHYSICS OF THE DARK UNIVERSE, vol.46, pp.1-32, 2024 (SCI-Expanded)
9. **Particle dynamics and QPOs around a black hole coupled with nonlinear electrodynamics and cloud of strings**  
Güdekli E.  
CHINESE JOURNAL OF PHYSICS, vol.92, pp.1-30, 2024 (SCI-Expanded)
10. **Investigating physical existence of charged stellar models**  
Demir E., Naseer T., Ashraf A., GÜDEKLİ E.  
Chinese Journal of Physics, vol.91, pp.299-315, 2024 (SCI-Expanded)
11. **Bouncing Universe Scenarios in an Extended Gravitational Framework Involving Curvature-Matter Coupling**  
Zubair M., Muneer Q., Waheed S., Yildiz G. D. A., Gudekli E.  
JOURNAL OF HIGH ENERGY ASTROPHYSICS, vol.44, pp.1-32, 2024 (SCI-Expanded)
12. **Experimental approach and analysis of the effectiveness of using virtual reality (VR) technology in teaching astronomy to students of pedagogical specialties**  
Chervonnyy M., Ertan G.  
ILIM, vol.41, no.3, pp.50-60, 2024 (SCI-Expanded)
13. **Exploring the deceleration parameter in  $f(T)$  gravity: A comprehensive analysis using parametrization techniques and observational data**  
Chaudhary H., Bouali A., DURU H., GÜDEKLİ E., Mustafa G.  
International Journal of Geometric Methods in Modern Physics, vol.21, no.9, 2024 (SCI-Expanded)
14. **Cosmology of the interacting Tsallis holographic dark energy in  $f(R, T)$  gravity framework**  
Sultana S., Ranjit C., Chattopadhyay S., GÜDEKLİ E.  
International Journal of Modern Physics D, vol.33, no.9-10, 2024 (SCI-Expanded)
15. **Constraints on bulk viscosity in  $f(Q, T)$  gravity from  $H(z)$ /Pantheon plus data**  
Koussour M., Errehymy A., Donmez O., Myrzakulov K., Khan M., Çil B., Güdekli E.  
PHYSICS OF THE DARK UNIVERSE, vol.45, 2024 (SCI-Expanded)
16. **Linear redshift parametrization of deceleration parameter in  $f(R, L_m)$  gravity**  
Myrzakulov Y., Donmez O., YILDIZ G., GÜDEKLİ E., Muminov S., Rayimbaev J.  
PHYSICS OF THE DARK UNIVERSE, vol.45, 2024 (SCI-Expanded)
17. **Sign changeable coupled ghost dark fluid in the realization of cosmological bounce inflation**  
Saha S., Chattopadhyay S., Gudekli E.  
INTERNATIONAL JOURNAL OF MODERN PHYSICS D, vol.33,  
no.https://www.worldscientific.com/doi/10.1142/S0218271824500421, pp.1-32, 2024 (SCI-Expanded)
18. **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)
19. **Thin-shell wormholes with AdS black holes surrounded by Chaplygin dark fluid**  
Javed F., Waseem A., Mustafa G., Güdekli E.  
International Journal of Geometric Methods in Modern Physics, vol.21, no.3, 2024 (SCI-Expanded)
  20. **A coupled-fluid approach to explore bounce and inflationary cosmology with Barrow holographic as the driving dark fluid**  
Saha S., Chattopadhyay S., Güdekli E.  
European Physical Journal C, vol.84, no.3, 2024 (SCI-Expanded)
  21. **Class of charged traversable Casimir wormholes in  $f(R,T)$  gravity**  
Azmat H., Muneer Q., Zubair M., Güdekli E., Ahmad I., Waheed S.  
Nuclear Physics B, vol.998, 2024 (SCI-Expanded)
  22. **Some versions of Chaplygin gas model in modified gravity framework and validity of generalized second law of thermodynamics**  
Sultana S., Güdekli E., Chattopadhyay S.  
Zeitschrift fur Naturforschung - Section A Journal of Physical Sciences, vol.79, no.1, pp.51-70, 2024 (SCI-Expanded)
  23. **Testing of Kerr black hole with quintessential dark energy through observational data by using quasi-periodic oscillations**  
Liu Y., Mustafa G., Maurya S., Yildiz G. A., Güdekli E.  
Physics of the Dark Universe, vol.42, 2023 (SCI-Expanded)
  24. **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)
  25. **New traversable wormhole solutions in Einstein Gauss-Bonnet gravity**  
Zubair M., Farooq M., Gudekli E., Kousar H. R., Yildiz G. A.  
International Journal of Geometric Methods in Modern Physics, vol.20, no.11, 2023 (SCI-Expanded)
  26. **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)
  27. **A Study on the Various Aspects of Bounce Realisation for Some Choices of Scale Factors**  
Saha S., Güdekli E., Chattopadhyay S.  
Symmetry, vol.15, no.7, 2023 (SCI-Expanded)
  28. **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)
  29. **Hyperbolic Scenario of Accelerating Universe in Modified Gravity**  
Khan R. A. A., Tiwari R. K., Bharali J., Bouali A., Yildiz G. D. A., GÜDEKLİ E.  
Symmetry, vol.15, no.6, 2023 (SCI-Expanded)
  30. **Implications of  $f(R, T)$  gravity on the complexity factor of a physically consistent charged anisotropic stellar model**  
Zubair M., Azmat H., Gudekli E., Alhowaity A., Hamam H.  
NEW ASTRONOMY, vol.100, 2023 (SCI-Expanded)
  31. **Traversable wormholes in Rastall teleparallel gravity with non-commutative geometry**  
Song S., Güdekli E.  
New Astronomy, vol.100, 2023 (SCI-Expanded)
  32. **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)
  33. **Horizon problem for Bianchi type-V universe model**

- Çil B., Çevik I., Yıldız G. A., Kara E., Güdekli E.  
Canadian Journal of Physics, vol.101, no.3, pp.101-105, 2023 (SCI-Expanded)
34. **Constraining study of Rastall parameter on charged anisotropic compact star model**  
Ashraf A., Shahzad M. R., Zhang Z., Gudekli E., Jamal M. F.  
Physica Scripta, vol.98, no.3, 2023 (SCI-Expanded)
35. **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)
36. **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)
37. **Wormholes models in  $f(R)$  gravity inspired by non-compact matter source**  
Gudekli E., Nazar H., Abbas G., Saddique M.  
INTERNATIONAL JOURNAL OF GEOMETRIC METHODS IN MODERN PHYSICS, vol.19, 2022 (SCI-Expanded)
38. **Thermodynamics and stability analysis of Tsallis Holographic Dark Energy (THDE) models in  $F(R, T)$  gravity**  
Zubair M., Muneer Q., Gudekli E.  
ANNALS OF PHYSICS, vol.445, 2022 (SCI-Expanded)
39. **A study of bouncing cosmology in framework of  $f(T, T)$  gravity with probing of cosmographic parameters**  
Zubair M., Farooq M., Gudekli E.  
INTERNATIONAL JOURNAL OF GEOMETRIC METHODS IN MODERN PHYSICS, vol.19, no.09, 2022 (SCI-Expanded)
40. **Isotropization of N-component orthogonal fluid within the framework of Einstein field equations**  
Yılmaz A. O., Çil B., Kara E., Güdekli E.  
New Astronomy, vol.94, 2022 (SCI-Expanded)
41. **Study of anisotropic strange stars in Krori Barua metric under  $f(T, T)$  gravity**  
GÜDEKLİ E., Kamran M. J., Zubair M., Ahmed I.  
Chinese Journal of Physics, vol.77, pp.592-604, 2022 (SCI-Expanded)
42. **Anisotropic stellar model in  $F(T, \mathcal{T})$  gravity under the Karmarkar condition**  
Gudekli E., Zubair M., Kamran M. J., Ahmed I.  
INTERNATIONAL JOURNAL OF GEOMETRIC METHODS IN MODERN PHYSICS, vol.19, no.04, pp.1-18, 2022 (SCI-Expanded)
43. **Viscous holographic  $f(Q)$  cosmology with some versions of holographic dark energy with generalized cut-offs**  
Chakraborty G., Chattopadhyay S., GÜDEKLİ E.  
RESEARCH IN ASTRONOMY AND ASTROPHYSICS, vol.21, no.12, 2022 (SCI-Expanded)
44. **Corrigendum to Isotropization of N-component orthogonal fluid within the framework of Einstein field equations: [New Astronomy Volume 94 (2022) Article 101792] (New Astronomy (2022) 94, (S1384107622000227), (10.1016/j.newast.2022.101792))**  
Yılmaz A. O., Çil B., Kara E., Güdekli E.  
NEW ASTRONOMY, vol.95, pp.1-10, 2022 (SCI-Expanded)
45. **DEEP NEURAL NETWORKS AS A TOOL TO ESTIMATION OF COSMIC RADIATION DOSE RECEIVED ON FLIGHT**  
YILMAZ A., YILMAZ ALAN H., FAYDASIÇOK Ö., Susam L., Samli R., AKKUŞ B., Erol A., GÜDEKLİ E., İnci C. İ., EMİRHAN M. E.  
UNIVERSITY POLITEHNICA OF BUCHAREST SCIENTIFIC BULLETIN-SERIES A-APPLIED MATHEMATICS AND PHYSICS, vol.84, no.2, pp.187-202, 2022 (SCI-Expanded)
46. **ESTIMATION OF COSMIC RADIATION DOSE RECEIVED ON FLIGHT BY MEANS OF DIFFERENT MACHINE LEARNING METHODS AND CARI-7A CALCULATIONS**  
YILMAZ ALAN H., YILMAZ ALAN H., FAYDASIÇOK Ö., Susam L., ŞAMLI R., AKKUŞ B., Erol A., GÜDEKLİ E., İnci Ç. İ.,

- EMİRHAN M. E.  
Romanian Journal of Physics, vol.67, no.1-2, 2022 (SCI-Expanded)
47. **ESTIMATION OF COSMIC RADIATION DOSE RECEIVED ON FLIGHT BY MEANS OF DIFFERENT MACHINE LEARNING METHODS AND CARL-7A CALCULATIONS**  
YILMAZ A., YILMAZ ALAN H., FAYDASIÇOK Ö., Susam L., Samli R., AKKUŞ B., Erol A., GÜDEKLİ E., Inci C. I., EMİRHAN M. E.  
ROMANIAN JOURNAL OF PHYSICS, no.1-2, 2022 (SCI-Expanded)
48. **BUSINESS PROCESS OPTIMIZATION BEYOND REENGINEERING**  
Güdekli E., Karakoz Abdiseitovna K., Dauletbay Turdaliyevich B., Pulat Ablatyevich S.  
TIANJIN DAXUE XUEBAO (ZIRAN KEXUE YU GONGCHENG JISHU BAN)/JOURNAL OF TIANJIN UNIVERSITY SCIENCE AND TECHNOLOGY, vol.54, no.12, pp.852-862, 2021 (SCI-Expanded)
49. **Mimetic matter in LRS Bianchi type-I model**  
Güdekli E., Demir E.  
CANADIAN JOURNAL OF PHYSICS, vol.99, no.10, pp.875-879, 2021 (SCI-Expanded)
50. **Relativistic stellar model in  $f(R,T)$  gravity using karmarkar condition**  
Zubair M., Javaid H., Azmat H., GÜDEKLİ E.  
New Astronomy, vol.88, 2021 (SCI-Expanded)
51. **Gravitational collapse for anisotropic radiating star with Karmarkar condition in  $f(R,T)$  gravity**  
Ahmed R., Abbas G., GÜDEKLİ E.  
Chinese Journal of Physics, vol.72, pp.78-92, 2021 (SCI-Expanded)
52. **Anisotropic stellar compact spheres in  $f(R)$  gravity via Karmarkar approach**  
Abbas G., Nazar H., Qaisar S., GÜDEKLİ E.  
International Journal of Geometric Methods in Modern Physics, vol.18, 2021 (SCI-Expanded)
53. **Constraining the swiss-cheese IR-fixed point cosmology with cosmic expansion**  
Mitra A., Zariqas V., Bonanno A., Good M., GÜDEKLİ E.  
Universe, vol.7, no.8, 2021 (SCI-Expanded)
54. **Analysis of different scenarios with new Tsallis holographic dark energies and bulk viscous fluid in the framework of Chern-Simons modified gravity**  
Ranjit C., Islam S., Chattopadhyay S., GÜDEKLİ E.  
International Journal of Modern Physics A, vol.36, 2021 (SCI-Expanded)
55. **A statistical analysis of observational hubble parameter data to discuss the cosmology of holographic chaplygin gas**  
Sarkar A., Chattopadhyay S., GÜDEKLİ E.  
Symmetry, vol.13, no.4, 2021 (SCI-Expanded)
56. **Thermodynamics of barrow holographic dark energy with specific cut-off**  
Chakraborty G., Chattopadhyay S., GÜDEKLİ E., Radinschi I.  
Symmetry, vol.13, no.4, 2021 (SCI-Expanded)
57. **Anisotropic compact star models in  $f(T)$  gravity with Tolman-Kuchowicz spacetime**  
Zubair M., Ditta A., GÜDEKLİ E., Bhar P., Azmat H.  
International Journal of Geometric Methods in Modern Physics, vol.18, 2021 (SCI-Expanded)
58. **Study of cosmological evolution via GGPDE  $f(R)$  models**  
Nawazish I., Javed W., GÜDEKLİ E., Abbas G.  
International Journal of Geometric Methods in Modern Physics, vol.18, 2021 (SCI-Expanded)
59. **Dynamical system analysis of FLRW models with Modified Chaplygin gas.**  
Yılmaz A. O., Güdekli E.  
Scientific reports, vol.11, pp.2750, 2021 (SCI-Expanded)
60. **Cosmic radiation exposure calculations for international and domestic flights departs from Istanbul and Ankara**  
Susam L., Alan H. Y., Yılmaz A., Erol A., Inci C. I., Akinci F. Ç., Akkus B., Demir M., Emirhan M. E., Faydasicok O., et al.  
Radiation Protection Dosimetry, vol.192, no.1, pp.61-68, 2020 (SCI-Expanded)
61. **Preface: Turkish Physical Society 35th International Physics Congress (TPS35)**

- Akkuş B., Burcu Cakirli Mutlu R., Güdekli E., Kınacı B., Güzelçimen F., Dogan G. S., Akıncı F. Ç., Ertoprak A.  
AIP Conference Proceedings, vol.2178, 2019 (SCI-Expanded)
62. **Spherically Symmetric Solutions of Light Galileon**  
MOMENI D., HOUNDJO M. J. S., Gudekli E., RODRIGUES M. E., ALVARENGA F. G., Myrzakulov R.  
INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS, vol.55, no.2, pp.1211-1221, 2016 (SCI-Expanded)
63. **Cosmological viable mimetic  $f(R)$  and  $f(R, T)$  theories via Noether symmetry**  
MOMENI D., Myrzakulov R., Gudekli E.  
INTERNATIONAL JOURNAL OF GEOMETRIC METHODS IN MODERN PHYSICS, vol.12, no.10, 2015 (SCI-Expanded)
64. **Teleparallelism by inhomogeneous dark fluid**  
Gudekli E., Myrzakulov R., MYRZAKULOV R.  
ASTROPHYSICS AND SPACE SCIENCE, vol.359, no.2, 2015 (SCI-Expanded)
65. **Trace-anomaly driven inflation in  $f(T)$  gravity with a cosmological constant**  
Gudekli E., MYRZAKULOV N., YERZHANOV K., MYRZAKULOV R.  
ASTROPHYSICS AND SPACE SCIENCE, vol.357, no.1, 2015 (SCI-Expanded)
66. **Bulk-Brane Matching in Bianchi-Types Brane World**  
Sevinc O., Gudekli E.  
ADVANCES IN HIGH ENERGY PHYSICS, 2011 (SCI-Expanded)

#### Articles Published in Other Journals

- Consistency Conditions of  $f(R,G)$ -Gravity Field Equations for Bianchi-Type III Metric**  
Güler S., Güdekli E.  
Asian Journal of Research and Reviews in Physics, vol.4, no.3, pp.29-41, 2021 (Peer-Reviewed Journal)
- An Analysis for Conservative and Non-conservative  $f(R, T)$  Gravity Models**  
Can D., Güdekli E.  
Asian Journal of Research and Reviews in Physics, 2021 (Peer-Reviewed Journal)
- Bianchi Type-V Cosmology with Gamma Law EoS in  $F(R,T)$  Gravity**  
Açan Yıldız G. D., Güdekli E., Sofuoğlu D.  
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### 2. THE INTERNAL STRUCTURE OF ANISOTROPIC STARS INTERACTING WITH ELECTROMAGNETIC FIELDS WITHIN THE FRAMEWORK OF $f(R, T, Q)$ THEORY

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### Academic and Administrative Experience

2023 - Continues	<b>Head of Department</b>	Istanbul University, Faculty Of Science, Department Of Physics
2018 - 2021	<b>Fakülte Kurulu Üyesi</b>	Istanbul University, Faculty Of Science, Department Of Physics
2017 - 2020	<b>Head of Department</b>	Istanbul University, Faculty Of Science, Department Of Physics
2016 - 2020	<b>Vice Dean</b>	İstanbul Üniversitesi, Faculty of Science
2016 - 2019	<b>Erasmus Program Institutional Coordinator</b>	İstanbul Üniversitesi, Faculty of Science
2016 - 2019	<b>Mevlana Exchange Program Institutional Coordinator</b>	İstanbul Üniversitesi, Faculty of Science
2016 - 2019	<b>Farabi Program Institutional Coordinator</b>	İstanbul Üniversitesi, Faculty of Science

### Courses

- Fizikte Matematiksel Metotlar 1, Undergraduate, 2023 - 2024  
FİZİKTE MATEMATİKSEL METOTLAR II , Undergraduate, 2022 - 2023  
Elektrodinamik, Undergraduate, 2021 - 2022  
Kisisel Proje Ii, Undergraduate, 2021 - 2022  
Fizikte Mataematik Metotlar I, Undergraduate, 2021 - 2022  
Fizikte Matematiksel Metodlar I, Undergraduate, 2021 - 2022  
Kişisel Proje II, Undergraduate, 2019 - 2020  
İleri Elektromagnetik Teori, Postgraduate, 2020 - 2021

Fizikte Matematik Metodlar, Undergraduate, 2019 - 2020  
Fizikte Matematiksel Metodlar, Undergraduate, 2019 - 2020  
İleri Fizik Uygulamaları II, Undergraduate, 2019 - 2020  
Diferansiyel Denklemler ve Dinamik Sistemler, Postgraduate, 2019 - 2020  
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FİZİKTE DİFERANSİYEL GEOMETRİ, Postgraduate, 2013 - 2014  
İleri Fizik Uygulamaları, Undergraduate, 2013 - 2014  
Fizikte Mataematik Metotlar, Undergraduate, 2013 - 2014  
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Fizikte Matematik Metotlar (II.ÖĞRETİM), Undergraduate, 2012 - 2013  
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## Advising Theses

- Güdekli E., Öz Karanlık Enerji İle Kerr Karadeliğinin Gözlemsel Veriler Kullanılarak İncelenmesi, Doctorate, G.Dilara(Student), Continues
- Güdekli E., Değiştirilmiş Gravitasyon Teorilerindeki Kozmolojik Büyüklüklerin Dinamik Sistem Analizi, Doctorate, A.Osman(Student), Continues
- Güdekli E., Karanlık Enerji Adayları için Genelleştirilmiş Holografik Durum Denklemlerinin İstatistiksel Analizi, Doctorate, E.Demir(Student), Continues
- Güdekli E., Alternatif Gravitasyon Teorileri Çerçevesinde Holografik Sıçramanın Analizi, Postgraduate, B.Çil(Student), 2024
- Güdekli E., Investigation of the Effects of Fluids in Modified Gravitation Theories, Doctorate, A.ÇALIŞKAN(Student), 2024
- Chattopadhyay S., Güdekli E., The Study of the Unification of Early Inflation and Late Time Acceleration through Dark Energy and Modified Theories of Gravity, Doctorate, G.CHAKRABORTY(Student), 2023
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- Güdekli E., F(G) Kozmolojisinde Evrim ve Bağ Denklemleri, Postgraduate, N.AKTAY(Student), 2022
- Güdekli E., Applications of the Theory of Dynamical Systems in f(R) Gravitation, Postgraduate, G.DİLARA(Student), 2021
- Güdekli E., Genel Rölativite Teorisine Karanlık Madde ve Karanlık Enerjiye Alternatif Olacak Şekilde Kızılötesi Düzeltmeler, Doctorate, D.Can(Student), 2021
- Güdekli E., Yüksek mertebeden gravitasyon teorilerinde dinamik sistem analizi, Postgraduate, A.OSMAN(Student), 2021
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- Emirhan M. E., AKKUŞ B., GÜDEKLİ E., AKINCI F. Ç., Koronavirüs Tespiti İçin Gerçek Zamanlı Ölçüm Cihazı, Patent, CHAPTER A Human Needs, The Invention Recourse Number: 2020-08695 , Standard Registration, 2020
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- Emirhan M. E., AKKUŞ B., GÜDEKLİ E., AKINCI F. Ç., HASTANELERDEKİ NOZOKOMİYAL ENFEKSİYON ETKENLERİNİ GERÇEK ZAMANLI ÖLÇMEK ÜZERE BİR CİHAZ, Patent, CHAPTER A Human Needs, The Invention Recourse Number: PT2019-18242 , Standard Registration, 2019

## Activities in Scientific Journals

- ADVANCES IN ASTRONOMY, Special Issue Editor, 2024 - Continues

## Memberships / Tasks in Scientific Organizations

- Türk Fizik DERNEĞİ, Member, 2013 - Continues

## Scientific Refereeing

- NUCLEAR PHYSICS B, SCI Journal, November 2024
- EUROPEAN PHYSICAL JOURNAL C, SCI Journal, November 2024
- CHINESE PHYSICS C, SCI Journal, November 2024
- European Journal of Pure and Applied Mathematics, SCI Journal, November 2024
- PHYSICS OF THE DARK UNIVERSE, SCI Journal, October 2024

PHYSICA SCRIPTA, SCI Journal, October 2024  
NUCLEAR PHYSICS B, SCI Journal, October 2024  
NUCLEAR PHYSICS B, SCI Journal, October 2024  
PHYSICS OF THE DARK UNIVERSE, SCI Journal, October 2024  
CHINESE PHYSICS C, SCI Journal, October 2024  
PHYSICS OF THE DARK UNIVERSE, SCI Journal, September 2024  
NUCLEAR PHYSICS B, SCI Journal, September 2024  
ANNALEN DER PHYSIK (LEIPZIG), SCI Journal, August 2024  
INTERNATIONAL JOURNAL OF GEOMETRIC METHODS IN MODERN PHYSICS, SCI Journal, August 2024  
ASTRONOMY AND COMPUTING, SCI Journal, August 2024  
PHYSICS OF THE DARK UNIVERSE, SCI Journal, August 2024  
ANNALEN DER PHYSIK (LEIPZIG), SCI Journal, August 2024  
Journal of New Theory, Other Indexed Journal, July 2024  
INTERNATIONAL JOURNAL OF GEOMETRIC METHODS IN MODERN PHYSICS, SCI Journal, July 2024  
Journal of New Theory, Other Indexed Journal, July 2024  
INDIAN JOURNAL OF PHYSICS, SCI Journal, July 2024  
INDIAN JOURNAL OF PHYSICS, SCI Journal, June 2024  
MODERN PHYSICS LETTERS A, SCI Journal, June 2024  
PLOS ONE, SCI Journal, June 2024  
COMMUNICATIONS IN THEORETICAL PHYSICS, SCI Journal, May 2024  
ANNALEN DER PHYSIK (LEIPZIG), SCI Journal, May 2024  
PHYSICS OF THE DARK UNIVERSE, SCI Journal, May 2024  
PHYSICS OF THE DARK UNIVERSE, SCI Journal, May 2024  
PHYSICS OF THE DARK UNIVERSE, SCI Journal, May 2024  
NEW ASTRONOMY, SCI Journal, May 2024  
PLOS ONE, SCI Journal, April 2024  
NEW ASTRONOMY, SCI Journal, April 2024  
CHINESE PHYSICS C, SCI Journal, April 2024  
COMMUNICATIONS IN THEORETICAL PHYSICS, SCI Journal, March 2024  
COMMUNICATIONS IN THEORETICAL PHYSICS, SCI Journal, March 2024  
FORTSCHRITTE DER PHYSIK, SCI Journal, March 2024  
NEW ASTRONOMY, SCI Journal, March 2024  
NEW ASTRONOMY, SCI Journal, February 2024  
INDIAN JOURNAL OF PHYSICS, SCI Journal, January 2024  
PHYSICS OF THE DARK UNIVERSE, SCI Journal, January 2024  
GENERAL RELATIVITY AND GRAVITATION, SCI Journal, January 2024  
EUROPEAN PHYSICAL JOURNAL: SPECIAL TOPICS, Journal Indexed in SCI-E, January 2024  
GENERAL RELATIVITY AND GRAVITATION, Journal Indexed in SCI-E, December 2023  
FORTSCHRITTE DER PHYSIK, Journal Indexed in SCI-E, November 2023  
GENERAL RELATIVITY AND GRAVITATION, Journal Indexed in SCI-E, November 2023  
Results in Physics, Journal Indexed in SCI-E, October 2023  
GENERAL RELATIVITY AND GRAVITATION, SCI Journal, October 2023  
PHYSICS OF THE DARK UNIVERSE, Journal Indexed in SCI-E, October 2023  
INDIAN JOURNAL OF PHYSICS, SCI Journal, October 2023  
INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS, SCI Journal, September 2023  
Results in Physics, SCI Journal, September 2023  
PHYSICS OF THE DARK UNIVERSE, SCI Journal, September 2023  
Journal of New Theory, Other Indexed Journal, September 2023  
Journal of New Theory, Other Indexed Journal, September 2023  
Journal of New Theory, Other Indexed Journal, June 2023  
FOUNDATIONS OF PHYSICS LETTERS, SCI Journal, May 2023



INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS, SCI Journal, April 2023  
SÜLEYMAN DEMİREL ÜNİVERSİTESİ FEN EDEBİYAT FAKÜLTESİ FEN DERGİSİ = SÜLEYMAN DEMİREL UNIVERSITY  
FACULTY OF ARTS AND SCIENCE JOURNAL OF SCIENCE, Other Indexed Journal, March 2023  
UNIVERSE, Journal Indexed in SCI-E, March 2023  
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, SCI Journal, March 2023  
Project Supported by Higher Education Institutions, BAP Research Project, Yildiz Technical University, Turkey, March  
2023  
ANNALEN DER PHYSIK (LEIPZIG), Journal Indexed in SCI-E, September 2022  
Project Supported by Higher Education Institutions, BAP Research Project, Yildiz Technical University, Turkey, April 2022  
Journal of New Theory, Other Indexed Journal, March 2022  
Project Supported by Higher Education Institutions, BAP Research Project, Dogus University, Turkey, January 2022  
Journal of New Theory, Other Indexed Journal, December 2021  
Project Supported by Higher Education Institutions, BAP Research Project, Yildiz Technical University, Turkey, July 2021  
Cumhuriyet Science Journal, National Scientific Refreed Journal, May 2021  
Project Supported by Higher Education Institutions, BAP Research Project, Yildiz Technical University, Turkey, May 2021  
Turkish Journal of Physics, SCI Journal, April 2017  
AIP, SCI Journal, December 2015  
AIP, Journal Indexed in SSCI, December 2015  
Turkish Journal of Physics, SCI Journal, May 2014  
Turkish Journal of Physics, SCI Journal, November 2013  
Balkan Physical Letters, Other Indexed Journal, October 2012

## Scientific Consultations

TUBİTAK BİDEP, Other, Istanbul University, Faculty Of Science, Department Of Physics, Turkey, 2019 - Continues

## Tasks In Event Organizations

Güdekli E., Türk Fizik Derneği XVI. Uluslararası Parçacık Hızlandırıcıları ve Dedektörleri Yaz Okulu, Science / Art Camp or  
Summer School Organization, Muğla, Turkey, Eylül 2024  
Güdekli E., Turkish Physical Society 40th International Physics Congress , Scientific Congress, Muğla, Turkey, Eylül 2024  
Güdekli E., Türk Fizik Derneği 9. Fizik Öğrencileri Kongresi ve Şenliği , Scientific Congress, Muğla, Turkey, Eylül 2024  
Güdekli E., Sofuoğlu D., Turkish Physical Society 39th International Physics Congress, Scientific Congress, Muğla, Turkey,  
Eylül 2023  
Güdekli E., Türk Fizik Derneği 8. Fizik Öğrencileri Kongresi ve Şenliği , Scientific Congress, Muğla, Turkey, Eylül 2023  
Sofuoğlu D., GÜDEKLİ E., T.C. İSTANBUL YENİ YÜZYIL ÜNİVERSİTESİ 9. BİLİM GÜNLERİ KONGRESİ, Scientific Congress,  
İstanbul, Turkey, Mayıs 2023  
Güdekli E., T.C. İSTANBUL YENİ YÜZYIL ÜNİVERSİTESİ 8. BİLİM GÜNLERİ KONGRESİ, Scientific Congress, İstanbul,  
Turkey, Mayıs 2022  
Güdekli E., The International Kuresan Multidisciplinary Studies Congress 2021, Scientific Congress, Turkey, Ekim 2021

## Metrics

Publication: 130  
Citation (WoS): 368  
Citation (Scopus): 378  
H-Index (WoS): 10  
H-Index (Scopus): 10

## Congress and Symposium Activities

International Conference on Relativistic Astrophysics and Cosmology, Invited Speaker, Lahore, Pakistan, 2024  
Turkish Physical Society 34th International Physics Congress, Attendee, Muğla, Turkey, 2018  
TURKISH PHYSICAL SOCIETY 33th INTERNATIONAL PHYSICAL CONGRESS, Attendee, Muğla, Turkey, 2017  
The 3rd International Conference ASTROPHYSICS, GRAVITY AND COSMOLOGY, Attendee, Astana, Kazakhstan, 2016  
TURKISH PHYSICAL SOCIETY 32th INTERNATIONAL PHYSICAL CONGRESS, Attendee, Muğla, Turkey, 2016  
International Conference on Law and Trade,, Attendee, İSTANBUL, TÜRKİYE, , Turkey, 2015  
TURKISH PHYSICAL SOCIETY 31th INTERNATIONAL PHYSICAL CONGRESS, Attendee, Bodrum/Muğla, Turkey, 2014  
TURKISH PHYSICAL SOCIETY 29th INTERNATIONAL PHYSICAL CONGRESS, Attendee, Bodrum/Muğla, Turkey, 2012  
27 th International Physics Congress, Attendee, İstanbul, Turkey, 2011  
MATHEMATICAL PHYSICS Proceedings of the 13th Regional Conference, Attendee, Antalya, Turkey, 2010  
International Workshop on Observational Cosmology, Attendee, TUG, Saklıkent, Antalya , Turkey, 2009  
Sixth School On Non-Accelerator astroparticle Physics, Attendee, Trieste, Italy, 2001  
Summer School in Partical Physics, Attendee, Trieste, Italy, 2001  
Summer School in High Energy Physics and Cosmology, Attendee, Trieste, Italy, 1998

## Invited Talks

STATE SPACE ANALYSIS OF FRW UNIVERSE WITH MODIFIED CHAPLYGIN GAS, Conference, International Conference on Relativistic Astrophysics and Cosmology, Pakistan, February 2024  
International Conference on Recent Trends in Mathematical and Computational Sciences (ICRTMCS 2022), Conference, Department of Mathematics and Department of Statistics, Amity University Kolkata, India, July 2022  
ASTROPHYSICS, GRAVITY AND COSMOLOGY, Conference, Gumilöv Avrasya Üniversitesi, Kazakhstan, November 2016

## Research Areas

Differential Equations, Topological Groups, Lie Groups, Physics, Astronomy and Astrophysics, Interdisciplinary Physics and Related Science and Technology Areas, Natural Sciences

## Non Academic Experience

Non-profit Organisation, Türk Fizik Derneği  
İstanbul Üniversitesi