

## CURRICULUM VITAE



*Dr. GHULAM MUSTAFA*

### Personal Details

<b>Father's name:</b>	<b>MUHAMMAD ALI</b>
<b>Date of birth:</b>	12 <sup>th</sup> August 1989.
<b>Domicile:</b>	Punjab (Sahiwal)
<b>Nationality:</b>	Pakistani
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### About Me

Allow me to introduce myself as a passionate individual deeply immersed in the captivating realm of cosmology and astrophysics an individual who finds sheer fascination in unraveling the mysteries of the cosmos. I am a dedicated researcher with profound interest and expertise in several key areas of theoretical physics. My primary focus resides in the fields of Tensor Analysis and Tensor Calculus, where I adeptly navigate the complexities of mathematical frameworks to derive meaningful insights. My passion extends into the realms of General Relativity, Astrophysics, and Cosmology, where I delve into the profound mysteries of the universe. My contributions to gravitational lensing, black holes, and dark energy and dark matter showcase a keen understanding of the intricate workings of cosmic structures. Additionally, I am actively exploring modified theories of gravity to address the Hubble tension, recognizing that pushing the boundaries of our understanding of the dark energy problem is fundamental in present-day physics. My expertise further extends to cosmological tests and observational constraints, where I utilize statistical methods for cosmological analysis. As a meticulous researcher, I employ mathematical and numerical modeling to unravel the complexities of the cosmos. My work stands as a testament to my dedication to advancing our understanding of the Universe through rigorous scientific inquiry. With a wealth of knowledge and a commitment to excellence, I continue to make significant contributions to the fields of theoretical and mathematical physics, leaving an indelible mark on our comprehension of the cosmos.

## Awards and Scholarships

- 1) Shanghai University awarded me as "Academic Star Award" for the academic year 2020.
- 2) I was awarded by the Chinese Ministry of Education as "Chinese Government Outstanding International Students Scholarship." for the academic year 2020.
- 3) My PhD thesis won the second-best thesis award at the University.
- 4) Shanghai University awarded me as "Outstanding Graduates Award" for the academic year 2021.
- 5) Full Scholarship from the Chinese Scholarship Council (CSC) for PhD degree.

## Academic Qualifications

### Postdoc (Department of Physics)

Zhejiang Normal University China 12<sup>th</sup> January 2022 -30- January 2024

**Area of Research:** "Wormholes, Black Holes, Stellar Structures, Extended Theories of Gravity, Cosmology, General Relativity,"

### PhD (Applied Mathematics)

Shanghai University China

12<sup>th</sup> June 2021 (Completion Date)

**Area of Research:** "Study of Stellar Structures and Wormhole Modeling in Modified Theories of Gravity"

### M.S (Applied Mathematics)

COMSATS Institute of Information Technology.

24<sup>th</sup> May 2017 (Completion Date)

Marks: 81%

**Area of Research:** "Non-commutative Wormhole Solutions in  $f(R, T)$  Gravity"

### M.Sc. (Applied Mathematics)

COMSATS Institute of Information Technology.

21<sup>st</sup> January 2014 (Completion Date)

Marks: 74.73%

**Area of Research:** "Fractional Differential Equations and Their Solutions"

## Field of Expertise

- i) Cosmology
- ii) Wormhole physics
- iii) Black hole
- iv) Compact stars
- v) Fractional Calculus.
- vi) Modified theories of gravity

## Teaching Experience

- i) Worked as a lecturer (Mathematics) at Post Graduate College Sahiwal (2014-2015).
- ii) Worked as a lecturer (Mathematics) at the University of Sahiwal (2015-2018).
- iii) Worked as a visiting lecturer (Mathematics) at the Government College University Faisalabad Sahiwal Campus (2015-2017).
- iv) I have taught one Course, "Non-linear differential equations," to a master class at Shanghai University (2020-2021)

## Editorial Role:

- i) **Advances in High Energy Physics** (Academic Editor)
- ii) **Frontiers of Physics** (Imprints of Dark Matter and Dark Energy on Astrophysical Compact Objects)
- iii) **Symmetry** (Application of Symmetry in Gravity Researches).

iv) **Symmetry** (Symmetries and Fuzzy Differential Equations).

#### Conference Organizer:

- i) One-day Online International Webinar on “**Recent Research in Gravity**” at Zhejiang Normal University, China
- ii) One day Seminar on “Applications of Symmetries in Gravity” at COMSATS University, Pakistan

#### Conference/ Workshops/School Participated

- a) International Conference on Recent Advances in Applied Mathematics (December 17-18, 2015)  
COMSATS Lahore Campus Pakistan
- b) One Day Conference on Gravitation and Cosmology (November 26, 2016) Punjab University Pakistan
- c) International conference on Diffusion Fundamentals (Sep-6 to Sep-9, 2023) New Uzbekistan University
- d) **ICTP Summer School on Geometry and Gravity (15-08-2019 to 27-08-2019) Italy**

#### Member of Research Committees

- Serving as Reviewer of Classical and Quantum Gravity
- Serving as Reviewer of European Physical Journal C
- Serving as Reviewer of Physical Review D
- Serving as Reviewer of Physics of Dark Universe
- Serving as Reviewer of Chinese Journal of Physics
- Serving as Reviewer of International Journal of Modern Physics D
- Serving as Reviewer of Int. Journal of Geometric Methods in Modern Physics
- Serving as Reviewer of Mathematics
- Serving as Reviewer of Gravitation & Cosmology
- Serving as Reviewer of Scientific Reports
- Serving as Reviewer of Universe
- Serving as Reviewer of Signals
- Serving as Reviewer of Symmetry
- Serving as Reviewer of Physica Scripta
- Serving as Reviewer of Communications in Theoretical Physics
- Serving as Reviewer of Int. Journal of Modern Physics Letter A

#### Research Summary

- Total Research Articles in Impact Factor Journals: **213+**
- Cumulative IF: **680.37+**
- Cumulative Citations: **3600+**
- h-index: **33+**
- i10-index: **113+**

A complete list of Research Articles can be seen at the following link.

<https://scholar.google.com/citations?user=JXwhRQoAAAAJ&hl=en>

#### Research Summary According to Some Scientific Journals

Sr. Nos	Names of Journals	Nos. of Publications
1.	European Physical Journal C	31
2.	Physics of the Dark Universe	28
3.	Fortschritte der Physik - Progress of Physics	10
4.	Physical Review D	01
5.	Physics Letter B	02
6.	Astrophysical Journal Supplement Series	01

7.	Astrophysical Journal	01
8.	Monthly Notices of the Royal Astronomical Society	01
9.	Classical and Quantum Gravity	03
10.	Journal of Cosmology and Astroparticle Physics	04
11.	European Physical Journal Plus	10
12.	Chinese Physics C	07
13.	Progress of Theoretical and Experimental Physics	01
14.	Physica Scripta	09
15.	Nuclear Physics B	06
16.	Annals of Physics	07
17.	Chinese Journal of Physics	27
18.	Results in Physics	02
19.	Communications in Theoretical Physics	04
20.	International Journal of Geometric Methods in Modern Physics	25
21.	International Journal of Modern Physics A	06
22.	General Relativity and Gravitation	01
23.	International Journal of Modern Physics D	01
24.	Modern Physics Letter A	03
25.	New Astronomy	06
26.	Europhysics Letters	01
27.	Journal of High Energy Astrophysics	11
28.	Annalee der Physik	02
29.	Astroparticle Physics	01

## Publications

1. G. Mustafa, Ricci inverse gravity wormholes, *Physics Letter B, Phys. Lett. B* 848 (2024) 138407.
2. G. Mustafa, S. K. Maurya, Saibal Ray, and Faisal Javed, Construction of thin shell around new wormhole solutions via solitonic quantum wave dark matter, *Annals of Physics* 460 (2024) 169551
3. G. Mustafa, A. Ditta, Faisal Javed, S.K. Maurya, Himanshu Chaudhary and Farruh Atamurotov, A study on matter accretion onto charged black hole solution in metric-affine gravity, *Chinese Journal of Physics* 89 (2024) 628–648
4. G. Mustafa, S. K. Maurya, Testing strong gravitational lensing effects of various supermassive compact objects for the static and spherically symmetric hairy black hole by gravitational decoupling, *Eur. Phys. J. C* (2024) 84:686
5. G. Mustafa, S. K. Maurya, A. Ditta, Saibal Ray, and Farruh Atamurotov, Circular orbits and accretion disk around AdS black holes surrounded by dark fluid with Chaplygin-like equation of state *Eur. Phys. J. C* (2024) 84:690
6. N.S. Kavya, G. Mustafa, V. Venkatesha, Probing the existence of wormhole solutions in  $f(Q, T)$  gravity with conformal symmetry, *Annals of Physics* 468 (2024) 169723 [Corresponding Author]
7. Allah Ditta, Abdelmalek Bouzenada, G. Mustafa, Yousef Mohammed Alanazi, and Farzan Mushtaq, Particle motion, shadows and thermodynamics of regular black hole in pure gravity, *Physics of the Dark Universe* 46 (2024) 101573 [Corresponding Author]
8. Yihu Feng, Asifa Ashraf, Saadia Mumtaz, S.K. Maurya, G. Mustafa, and Farruh Atamurotov, Orbital motion and epicyclic oscillations around Bardeen black hole surrounded by perfect fluid dark matter, *Journal of High Energy Astrophysics* 43 (2024) 158–170
9. Allah Ditta, Faisal Javed, G. Mustafa, Farruh Atamurotov, and Shoolim Salimov, Particle dynamics and fundamental frequencies of black hole coupled

with a nonlinear electrodynamics field, *Journal of High Energy Astrophysics* 43 (2024) 51–60 [**Corresponding Author**]

10. G Abbas, R H Ali and **G. Mustafa**, Thermodynamical analysis with extended phase transition of AdS hairy black hole in gravitational decoupling theory, *Phys. Scr.* 99 (2024) 045025[**Corresponding Author**]
11. Faisal Javed, Arfa Waseem, Ji Lin, Sobia Sadiq, **G. Mustafa**, and Mansoor H. Alshehri, Insights into dynamical evolution and stability of thin-shell configurations through acoustic black holes, *Eur. Phys. J. C* (2024) 84:337
12. Puja Mukherjee, Ujjal Debnath, Himanshu Chaudhary, **G. Mustafa**, Constraining the parameters of generalized and viscous modified Chaplygin gas and black hole accretion in Einstein-Aether gravity, *Eur. Phys. J. C* (2024) 84:930[**Corresponding Author**]
13. **G. Mustafa**, Emre Demir, Akbar Davlatoliev, Himanshu Chaudhary, Farruh Atamurotov, Ertan Güdekli Observational signature of QPOs with particle motion around non-commutative Schwarzschild black hole surrounded by perfect fluid dark matter, *Physics of the Dark Universe* 46 (2024) 101644
14. Aylin Caliskan, **G. Mustafa**, Tayyab Naseer, S.K. Maurya, Ertan Güdekli, Sardor Murodov, Farruh Atamurotov, Particle dynamics with trajectories and epicyclic oscillations around a piece-wise black hole immersed in dark matter, *Journal of High Energy Astrophysics* 44 (2024) 99–115[**Corresponding Author**]
15. Faisal Javed, Ghulam Fatima, **G. Mustafa**, S.K. Maurya, Bander Almutairi, Analyzing heat engine efficiency, particle dynamics and thermodynamic properties of accelerated charged anti-de sitter black holes, *Physics of the Dark Universe* 46 (2024) 101677[**Corresponding Author**]
16. Rui-Yan Chen, Faisal Javed, **G. Mustafa**, S.K. Maurya, Saibal Ray, Dual effect of string cloud and dark matter halos on particle motions, shadows and epicyclic oscillations around Schwarzschild black holes, *Journal of High Energy Astrophysics* 44 (2024) 172–186
17. G. Murtaza, A. Ditta, Tayyab Naseer, G. Mustafa, S.K. Maurya, A. Ghaffar, Faisal Javed On the evaluation of accretion process near a quantum-improved charged black hole, *Journal of High Energy Astrophysics* 44 (2024) 279–289[**Corresponding Author**]
18. **G. Mustafa**, G. Dilara Açan Yildiz, Faisal Javed, S.K. Maurya, Ertan Güdekli, Farruh Atamurotov, Orbital motion, epicyclic oscillations, and collision of particles around conformally coupled charged black hole, *Physics of the Dark Universe* 46 (2024) 101647
19. S.K. Maurya, Ksh. Newton Singh, **G. Mustafa**, M. Govender, Abdelghani Errehymy, and Abdul Aziz, Influence of pressure anisotropy on mass-radius relation and stability of millisecond pulsars in  $f(Q)$  gravity, *JCAP09(2024)048* [**Corresponding Author**]
20. Sourav Chaudhary, Sunil Kumar Maurya, Jitendra Kumar and **G. Mustafa**, Most general isotropic charged fluid solution for Buchdahl model in  $F(Q)$  gravity, *JCAP09(2024)049*
21. Faisal Javed, Saadia Mumtaz, Ali Raza, Bander Almutairi, **G. Mustafa**, Ghulam Fatima, Graybody factor of uncharged black hole in symmetric teleparallel gravity, *Physics of the Dark Universe* 46 (2024) 101656
22. Faisal Javed, Dhruv Arora, Muhammad Yasir, Himanshu Chaudhary, **G. Mustafa**, Xia Tiecheng, Farruh Atamurotov Impact of chaplygin-like equation of state on Joule–Thomson expansion and tidal forces of AdS black holes, *Physics of the Dark Universe* 46 (2024) 101654[**Corresponding Author**]
23. Allah Ditta, Xia Tiecheng, S.K. Maurya, **G. Mustafa**, Asif Mahmood, Saibal Ray, Physical characteristics of anisotropic solutions in  $f(Q, \mathcal{T})$  gravity under the vanishing complexity, embedding class one, conformally flat and conformally Killing conditions, *Nucl. Phys. B* 1007 (2024) 116689[**Corresponding Author**]
24. Ghulam Fatima, Faisal Javed, Arfa Waseem, **G. Mustafa**, and Fairouz Tchier, Study of acoustic thin-shell wormholes with different types of matter distributions, *International Journal of Geometric Methods in Modern Physics* Vol. 21, No. 12 (2024) 2450198
25. Bilal Rasheed, Allah Ditta, Tayyab Naseer, Faisal Javed, and **G. Mustafa**, Analyzing the quantum corrected adS spherically symmetric black holes with phantom global monopoles for thermal properties, *International Journal of Geometric Methods in Modern Physics* (2024) 2450302
26. Arif Hussain, Faisal Javed, Ghulam Fatima, Fairouz Tchier, Shoakhmedova Nozima, and **G. Mustafa**, Scalar shell dynamics of quantum-corrected Schwarzschild black hole surrounded by quintessence field, *International Journal of Geometric Methods in Modern Physics* (2024) 2450297[**Corresponding Author**]
27. Rajesh Kumar, S.K. Maurya, Abdelghani Errehymy, **G. Mustafa**, Abdel-Haleem Abdel-Aty, H.I. Alrebdi, Mona Mahmoud Anisotropic Durgapal-Fuloria compact stars in  $f(\mathcal{R})$  gravity, *Nucl. Phys. B* 1008 (2024) 116690
28. S.K. Maurya, M.K. Jasim, Abdelghani Errehymy, K. Boshkayev, **G. Mustafa**, B. Dayanandan, Bose–Einstein Condensation dark matter models generated by gravitational decoupling, *Physics of the Dark Universe* 46 (2024) 101665.
29. S. K. Maurya, Asifa Ashraf, Fadhila Al Khayari, **G. Mustafa**, M. K. Jasim New charged anisotropic solution in  $f(Q)$ -gravity and effect of non-metricity and electric charge parameters on constraining maximum mass of self-gravitating objects, *Eur. Phys. J. C* (2024) 84:986
30. H. Rehman, G. Abbas, Tao Zhu, Qiang Wu, **G. Mustafa**, Circular orbits of accretion flow around charged black hole coupled with a nonlinear electrodynamics field, *Eur. Phys. J. C* (2024) 84:988[**Corresponding Author**]
31. Faisal Javed, Ghulam Fatima, **G. Mustafa**, S.K. Maurya, Bander Almutairi, Analyzing heat engine efficiency, particle dynamics and thermodynamic properties of accelerated charged anti-de sitter black holes, *Physics of the Dark Universe* 46 (2024) 101677[**Corresponding Author**]

32. Niyaz Uddin Molla, Himanshu Chaudhary, **G. Mustafa**, Ujjal Debnath, S. K. Maurya, Strong gravitational lensing, quasi-periodic oscillations and constraints from EHT observations for quantum-improved charged black hole, *Eur. Phys. J. C* (2024) 84:390[**Corresponding Author**]
33. S. K. Maurya, Abdelghani Errehymy, **G. Mustafa**, Orhan Donmez, Kottakkaran Sooppy Nisar, and Abdel-Haleem Abdel-Aty Charged Spherical Solution in Torsion and Matter Coupling Gravity and Influence of Torsion Parameter and Electric Charge on Compact Stars in Lower Mass Gap, *Prog. Theor. Exp. Phys.* 2024 043E02 (27 pages) [**Corresponding Author**]
34. Allah Ditta, Saadia Mumtaz, **G. Mustafa**, S.K. Maurya, Farruh Atamurotov, Asif Mahmood, Thermal analysis of gravitational decoupling black hole solution, *Journal of High Energy Astrophysics* 42 (2024) 146–155[**Corresponding Author**]
35. **G. Mustafa**, Faisal Javed, S.K. Maurya, M. Govender, Amna Saleem, Dynamical stability of new wormhole solutions via cold dark matter and solitonic quantum wave halos in  $f(R, Lm)$  gravity, *Physics of the Dark Universe* 45 (2024) 101508.
36. Faisal Javed, Ji Lin, **G. Mustafa**, and Ferdous M. O. Tawfiq, Dynamics and Stability via Thin-Shell of Approximated Black Holes in  $f(Q)$  Gravity, *Fortschr. Phys.* 2024, 2300081
37. Dhruv Arora, Himanshu Chaudhary, Shibesh Kumar Jas Pacif, **G. Mustafa**, Diagnostic and comparative analysis of dark energy models with  $q(z)$  parametrizations, *Eur. Phys. J. Plus* (2024) 139:371 [**Corresponding Author**]
38. Allah Ditta, Munaza Asia, **G Mustafa**, Değer Sofuoğlu and Asif Mahmood, Imprints of cloud of strings and quintessence field on compact stellar configurations, *Phys. Scr.* 99 (2024) 065009[**Corresponding Author**]
39. Ghulam Fatima, Sulaman Shaukat, Faisal Javed, **G. Mustafa**, Greybody factors, quasi-normal modes and thermal fluctuations of quantum-corrected Schwarzschild black hole surrounded by quintessence, *Physics of the Dark Universe* 45 (2024) 101521[**Corresponding Author**]
40. B.K. Shukla, Değer Sofuoğlu, Himanshu Chaudhary, Farruh Atamurotov, **G. Mustafa**, Cosmic evolution in  $f(Q, T)$  gravity with observational constraints: A comparative analysis with  $\Lambda$ CDM, *Journal of High Energy Astrophysics* 43 (2024) 1–14. [**Corresponding Author**]
41. Himanshu Chaudhary, Ujjal Debnath, Shibesh Kumar Jas Pacif, Niyaz Uddin Molla, **G. Mustafa**, and Sunil Kumar Maurya, Observational Constraints on the Parameters of Horava–Lifshitz Gravity, *Ann. Phys. (Berlin)* 2024, 2400181
42. **G. Mustafa**, Faisal Javed, Sunil Kumar Maurya, and Abdelghani Errehymy New Embedded Wormhole Solutions in Ricci Inverse Gravity, *Ann. Phys. (Berlin)* 2024, 2400155
43. Himanshu Chaudhary, Shibesh Kumar Jas Pacif, Ujjal Debnath, Farook Rahaman and **G. Mustafa**, Cosmological test of dark energy parametrizations within the framework of Horava-Lifshitz gravity via baryon acoustic oscillation, *Chinese Phys. C* 48 115109 (2024) [**Corresponding Author**]
44. Uma Papnoi, Farruh Atamurotov, Hemwati Nandan, Prasoon Pandey, **G. Mustafa**, Ikhtiyor Saidov Thermodynamics and lensing of charged black hole surrounded by perfect fluid dark matter, *Physics of the Dark Universe* 46 (2024) 101612[**Corresponding Author**]
45. **G. Mustafa**, Faisal Javed, S.K. Maurya, Arfa Waseem, Ghulam Fatima, Imprints of dark energy models on structural properties of charged gravastars in extended teleparallel gravity, *Physics of the Dark Universe* 46 (2024) 101574[**Corresponding Author**]
46. Farruh Atamurotov, Furkat Sarikulov, Sushant G. Ghosh, **G. Mustafa**, Exploring perfect fluid dark matter with EHT results of Sgr A\* through rotating 4D-EGB black holes, *Physics of the Dark Universe* 46 (2024) 101625[**Corresponding Author**]
47. Faisal Javed, **G. Mustafa**, G. Fatima, S.K. Maurya, Mansoor H. Alshehri, Iqra Mubeen, Joule-Thomson expansion for charged-AdS black hole with nonlinear electrodynamics and thermal fluctuations by using Barrow entropy, *Journal of High Energy Astrophysics* 44 (2024) 60–73[**Corresponding Author**]
48. Himanshu Chaudhary, Ujjal Debnath, Farook Rahaman, **G Mustafa** and Farruh Atamurotov, Early and late observational tension: dark energy parametrizations in horava-lifshitz gravity via baryon acoustic oscillations, *Phys. Scr.* 99 (2024) 105037[**Corresponding Author**]
49. Madhur Khurana, Himanshu Chaudhary, Ujjal Debnath, and **G. Mustafa**, Exploring Late-Time Cosmic Acceleration with EoS Parameterizations in Horava-Lifshitz Gravity via Baryon Acoustic Oscillations, *Fortschr. Phys.* 2024, 2300238 [**Corresponding Author**]
50. Niyaz Uddin Molla, Himanshu Chaudhary, **G. Mustafa**, Ujjal Debnath, and S. K. Maurya, Strong gravitational lensing, quasi-periodic oscillations and constraints from EHT observations for quantum-improved charged black hole, *Eur. Phys. J. C* (2024) 84:390 [**Corresponding Author**]
51. Madhur Khurana, Himanshu Chaudhary, Ujjal Debnath, and **G. Mustafa**, Analyzing a higher order  $q(t)$  model and its implications in the late evolution of the Universe using recent observational datasets, *Physics of the Dark Universe* 43 (2024) 101408 [**Corresponding Author**]
52. Asifa Ashraf, Faisal Javed, Wen-Xiu Ma and **G. Mustafa**, Structural properties of compact stars in extended Teleparallel gravity, *International Journal of Geometric Methods in Modern Physics* Vol. 21, No. 9 (2024) 2450161
53. G. Murtaza, A. Ditta, A. Ghaffar, **G. Mustafa**, S.K. Maurya, Farruh Atamurotov, Accretion mechanism for regular black holes with asymptotically Minkowski Cores and improved Schwarzschild black holes, *Chinese Journal of Physics* 91 (2024) 644–656 [**Corresponding Author**]
54. Arfa Waseem, Faisal Javed, **G. Mustafa**, Farruh Atamurotov, Bander Almutairi, Impact of cold dark matter and variable equations of state on the stability of thin-shell wormholes, *Physics of the Dark Universe* 46 (2024) 101613[**Corresponding Author**]
55. Dilmurod Ortiqboev, Faisal Javed, Farruh Atamurotov, Ahmadjon Abdujabbarov, **G. Mustafa**, Energy extraction and Keplerian fundamental frequencies in the Kalb–Ramond gravity, *Physics of the Dark Universe* 46 (2024) 101615[**Corresponding Author**]

56. Sayani Maity, Himanshu Chaudhary, Ujjal Debnath, S.K. Maurya, **G. Mustafa**, Constraining cosmological parameters with viscous modified chaplygin gas and generalized cosmic chaplygin gas models in Horava–Lifshitz gravity: Utilizing late-time datasets, *Astroparticle Physics* 164 (2025) 103026[**Corresponding Author**]
57. Himanshu Chaudhary, Ujjal Debnath, S.K. Maurya, **G. Mustafa**, Farruh Atamurotov, Addressing the  $rd$  tension using late-time observational measurements in a novel deceleration parametrization, *Journal of High Energy Astrophysics* 43 (2024) 268–279[**Corresponding Author**]
58. Rowan Kundu, Ujjal Debnath, Himanshu Chaudhary, **G. Mustafa**, Gravitational lensing of dark energy models and  $\Lambda$ CDM using observational data in loop quantum cosmology, *Journal of High Energy Astrophysics* 43 (2024) 239–247[**Corresponding Author**]
59. Sneha Pradhan, Sunil Kumar Maurya, Pradyumn Kumar Sahoo, and **G. Mustafa** Geometrically Deformed Charged Anisotropic Models in  $f(Q, T)$  Gravity, *Fortschr. Phys.* 2024, 2400092[**Corresponding Author**]
60. **G. Mustafa**, Allah Ditta, Saadia Mumtaz, S.K. Maurya, and Değer Sofuoğlu, Study on physical properties and maximum mass limit of Finch–Skea anisotropic model under Karmarkar condition in  $f(Q)$ -gravity, *Chinese Journal of Physics* 88 (2024) 938–954
61. **G. Mustafa**, Abdelghani Errehymy, Faisal Javed, S.K. Maurya, Sudan Hansraj, Sobia Sadiq, Generalized wormhole models within galactic halo region in torsion and matter coupling gravity formalism, *Journal of High Energy Astrophysics* 42 (2024) 1–11
62. Niyaz Uddin Molla, Himanshu Chaudhary, **G. Mustafa**, Farruh Atamurotov, Ujjal Debnath, Dhruv Arora, Strong gravitational lensing by  $Sgr A^*$  and  $M87^*$  black holes embedded in dark matter halo exhibiting string cloud and quintessential field, *Eur. Phys. J. C* <https://doi.org/10.1140/epjc/s10052-024-12917-0> (Accepted) [**Corresponding Author**]
63. S. K. Maurya, Himanshu Chaudhary, Allah Ditta, **G. Mustafa**, Saibal Ray, Study of self-bound compact stars in  $f(T)$  gravity and observational constraints on the model parameters, *Eur. Phys. J. C* <https://doi.org/10.1140/epjc/s10052-024-12838-y>(Accepted) [**Corresponding Author**]
64. Jyatsnasree Bora, Dhruva Jyoti Gogoi, Sunil Maurya and **G. Mustafa**, Impact of energy-momentum conservation violation on the configuration of compact stars and their GW echoes, *Classical and Quantum Gravity*, DOI 10.1088/1361-6382/ad51c4 (Accepted)
65. Faisal Javed, Arfa Waseem, **G. Mustafa**, Fairouz Tchier, Farruh Atamurotov, Bobomurat Ahmedov, Ahmadjn Abdujabbarov. Constraining study of charged gravastars solutions in symmetric teleparallel gravity, *Chinese Journal of Physics*, <https://doi.org/10.1016/j.cjph.2024.04.022>, (Accepted) [**Corresponding Author**]
66. **G. Mustafa**, Allah Ditta, Faisal Javed, Farruh Atamurotov, Ibrar Hussain, Bobomurat Ahmedov, Probing black hole in Starobinsky-Bel-Robinson gravity with thermodynamical analysis, effective force and gravitational weak lensing, *Chinese Journal of Physics* 90 (2024) 494–508
67. Allah Ditta, **G. Mustafa**, S.K. Maurya, Değer Sofuoğlu, and Asif Mahmood, Comparative Analysis of Dark Energy Compact Stars in  $f(T, T)$  and  $f(T)$  Gravity Theories via Conformally Flat Condition Classical and Quantum Gravity, DOI 10.1088/1361-6382/ad51c4 (Accepted)
68. Himanshu Chaudhary, Niyaz Uddin Molla, Madhur Khurana, Ujjal Debnath, and **G. Mustafa**, Cosmological test of dark energy parameterizations in Horava–Lifshitz gravity, *Eur. Phys. J. C* (2024) 84:223 [**Corresponding Author**]
69. Allah Ditta, Faisal Javed, **G. Mustafa**, S.K. Maurya, Değer Sofuoğlu, Farruh Atamurotov, Thermal analysis of charged Symmergent black hole with logarithmic correction, *Chinese Journal of Physics* 88 (2024) 287–300. [**Corresponding Author**]
70. N.S. Kavya, **G. Mustafa**, V. Venkatesha, P.K. Sahoo, exploring wormhole solutions in curvature–matter coupling gravity supported by noncommutative geometry and conformal symmetry, *Chinese Journal of Physics* 87 (2024) 751–765[**Corresponding Author**]
71. R.H. Ali, G. Abbas, and **G. Mustafa**, Effect of scalar hair on magnetically charge Euler-Heisenberg AdS black hole via extended phase transition, *Physics of the Dark Universe* 44 (2024) 101465[**Corresponding Author**]
72. Allah Ditta Xia Tiecheng, S. K. Maurya and **G. Mustafa**, Structural features of anisotropic spheres with quintessence in pure Lovelock gravity, *Pramana – J. Phys.* (2024) 98:45
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