

DR. SAADIA MUMTAZ

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Institute of Chemical Engineering & Technology (ICET),
University of the Punjab, Lahore-Pakistan.

Nationality: Pakistan

Weblinks;

- <http://pu.edu.pk/faculty/description/2243/Dr-Saadia-Mumtaz.html>
- <https://www.researchgate.net/profile/Saadia-Mumtaz/research>
- <https://scholar.google.com.pk/citations?user=HUDSM6UAAAAJ&hl=en>

Education

PhD, Applied Mathematics
(General Relativity and Cosmology)

Department of Mathematics, University of the Punjab, Lahore

Academic/Practical Exposure

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| Assistant Professor (TTS) | ICET, University of the Punjab, Lahore-Pakistan (<i>December 2019 - to date</i>) |
| Assistant Professor under IPFP (HEC) | Dept. of Mathematics, University of Engineering & Technology, Lahore (<i>2019</i>) |
| Member Local Organizing Committee | 4 th PU International Conference on Gravitation and Cosmology, Dept. of Mathematics, University of the Punjab, Lahore-Pakistan (<i>November 2021</i>) |
| PhD Approved Supervisor | Higher Education Commission, Islamabad-Pakistan (<i>February 2021- to date</i>) |
| Conference Secretary | Conference on Gravitation & Cosmology, Dept. of Mathematics, University of the Punjab, Lahore-Pakistan (<i>November 2016</i>) |
| Principal Organizer | International Symposium on Extended Theory of Gravity and Stellar Evolution, Department of Mathematics, University of Management and Technology, Lahore-Pakistan (<i>May 20, 2024</i>) |

Administrative Experience

- **In-charge Fee Section**, ICET, University of the Punjab, Lahore-Pakistan (*2020, 2021*)
- **Member B.Sc. & M.Sc. (Engg.) Curriculum Development Committee**, ICET, University of the Punjab, Lahore (*2020, 2021*)
- **Assistant Superintendent**, Hazrat Zainab Hall, University of the Punjab, Lahore (*Jan 2020- to date*)
- **Member PEC/OBE Accreditation Committee**, ICET, University of the Punjab, Lahore (*2021 & 2023 – to date*)
- **Member of the Committee for Students' Sports & Extra Curricular Activities (Female)**, ICET, University of the Punjab, Lahore (*2021–2024*)
- **Focal Person; Students' Hostel Affairs**, ICET, University of the Punjab, Lahore (*Nov 2021 – to date*)
- **In-charge, Students' Attendance Record**, ICET, University of the Punjab, Lahore (*Jan 2022 – to date*)
- **In-charge; Computer Lab**, ICET, University of the Punjab, Lahore-Pakistan (*2022 – 2025*)
- **Member GRE/HAT Committee for MSc/PhD Admissions**, ICET, University of the Punjab, Lahore (*Sep 2022–to date*)
- **Member Selection Committee for Departmental Societies**, ICET, University of the Punjab, Lahore (*2022, 2023*)
- **Member QEC-HEC Review Committee**, ICET, University of the Punjab, Lahore (*Oct 2022 – Dec 2024*)
- **Member Departmental Admission Committee**, ICET, University of the Punjab, Lahore (*Nov 2022 – June 2024*)
- **Member Curriculum Revision Committee**, ICET, University of the Punjab, Lahore (*June 2024 – Aug 2025*)
- **Focal Person, Campus Management System**, ICET, University of the Punjab, Lahore (*Dec 2024 – to date*)
- **Member of the Committee for Industrial Tours**, ICET, University of the Punjab, Lahore (*Dec 2024 – to date*)

- **Member of the Community Services/ Social Activities Committee**, ICET, University of the Punjab, Lahore (Dec 2024 – to date)
- **Member Auction Committee**, ICET, University of the Punjab, Lahore (For the year 2025)
- **In-charge; Industrial Tours (Females)**, ICET, University of the Punjab, Lahore (May 2025 – to date)
- **Committee for Upgradation of PC-1 regarding the Establishment/Upgradation of the Infrastructure**, ICET, University of the Punjab, Lahore (For the year 2025)
- **Focal Person for IT-Related Services**, ICET, University of the Punjab, Lahore (Nov 2025 – to date)
- **Member Hall Council Body**, University of the Punjab, Lahore (Jan 2026 – to date)

Teaching Experience

Taught the following courses:

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| Mathematical Methods | Dept. of Mathematics, University of the Punjab, Lahore |
| Calculus & Analytical Geometry | University of Engineering & Technology, Lahore |
| Differential Equations | University of Engineering & Technology, Lahore |
| Numerical Methods | University of Engineering & Technology, Lahore |
| Vectors and Complex Analysis | University of Engineering & Technology, Lahore |
| Advanced Computational Mathematics | ICET, University of the Punjab, Lahore-Pakistan |
| Engineering Mathematics I, II and III | ICET, University of the Punjab, Lahore-Pakistan |
| Calculus & Analytical Geometry | ICET, University of the Punjab, Lahore-Pakistan |
| Quantitative Reasoning | ICET, University of the Punjab, Lahore-Pakistan |
| Applied Differential Equations | ICET, University of the Punjab, Lahore-Pakistan |
| Linear Algebra | ICET, University of the Punjab, Lahore-Pakistan |
| Numerical Methods | ICET, University of the Punjab, Lahore-Pakistan |

Research Publications

2024:

1. **Saadia Mumtaz**, Rubab Manzoor, Aneesa Zulfiqar & S. Iftikhar: “*Anisotropic Stellar evolution and Exotic Matter*”, Phys. Scr. 99(2024) 075235 (Elsevier) **I.F: 2.6**
2. **Saadia Mumtaz**, Rubab Manzoor, Umair Sarwar: “*Solutions for Anisotropic Dissipative Collapse in $f(R)$ Gravity*”, New Astronomy 106(2024)102133 (Elsevier) **I.F: 2.1**
3. W. Shahid, Rubab Manzoor, **Saadia Mumtaz**, S.A. Mardan and Adnan Malik: “*Stability of Evolving Cluster of Stars and Exotic Matter*”, Eur. Phys. J. C 84(2024)1336 (Springer) **I.F: 4.8**
4. A Ditta, **Saadia Mumtaz**, G Mustafa, SK Maurya, F Atamurotov, A Mahmood; *Thermal analysis of gravitational decoupling black hole solution*, Journal of High Energy Astrophysics 42(2024)146, **I.F: 10.5**
5. F. Javed, **Saadia Mumtaz**, A. Raza, B. Almutairi, G. Mustafa & G. Fatima; *Greybody factor of uncharged black hole in symmetric teleparallel gravity*, Phys. Dark Universe, 46(2024)101656 (ScienceDirect) **I.F: 6.4**
6. Y Feng, A Ashraf, **Saadia Mumtaz**, SK Maurya, G Mustafa, F Atamurotov; *Orbital motion and epicyclic oscillations around Bardeen black hole surrounded by perfect fluid dark matter*, Journal of High Energy Astrophysics 43(2024)158, **I.F: 10.5**
7. G. Mustafa, Allah Ditta, **Saadia Mumtaz**, S.K. Maurya and D. Sofuoğlu: “*Study on physical properties and maximum mass limit of Finch-Skea anisotropic model under Karmarkar condition in $f(Q)$ -gravity*”, Chin. J. Phys. 88(2024)938 (Elsevier) **I.F: 4.6**
8. F. Javed, **Saadia Mumtaz**, G. Mustafa, F. Atamurotov and S.G. Ghosh: “*Exploring thin-shell dynamics in regular charged black hole through T-duality*”, Chin. J. Phys. 88(2024)55 (Elsevier) **I.F: 4.6**
9. M. Khurana, H. Chaudhary, **Saadia Mumtaz**, S.K.J. Pacif and G. Mustafa: “*Cosmic evolution in $f(Q, T)$ gravity: Exploring a higher-order time-dependent function of deceleration parameter with observational constraints*”, Phys. Dark Universe, 43(2024)101408 (Science Direct)) **I.F: 6.4**
10. Asifa Ashraf, **Saadia Mumtaz**, Faisal Javed, Zhiyue Zhang: *Viable embedded wormholes and energy conditions in $f(\mathcal{R}, \mathcal{G})$ gravity*, Int. Journal of Geometric Methods in Modern Physics 21(2024) 2450208-4 (World Scientific) **I.F: 2.2**

2023:

11. H. Chaudhary, **Saadia Mumtaz**, A. Bouali, U. Debnath and G. Mustafa: “*Parametrization of the Deceleration Parameter in a Flat FLRW Universe: Constraints and Comparative Analysis with the Λ CDM Paradigm*”, Gen. Relativ. Gravit. 55(2023)133 (Springer) **I.F: 2.8**

12. Rubab Manzoor, M Awais Sadiq, **Saadia Mumtaz**, Muhammad Aamir: “*Expansion-free Cluster of Stars in Modified Gauss–Bonnet Gravity*”, Chin. J. Phys. 86(2023)515 (Elsevier) **I.F: 4.6**
13. A. Bouali, H. Chaudhary, **Saadia Mumtaz**, G. Mustafa, S.K. Maurya: “*Observational Constraining Study of New Deceleration Parameters in FRW Universe*”, Fortschr. Phys. (2023)2300033 (Wiley) **I.F: 7.8**
14. Allah Ditta, Xia Tiecheng, **Saadia Mumtaz**, Farruh Atamurotov, G. Mustafa, Ahmadjon Abdujabbarov: “*Testing Metric-affine Gravity using Particle Dynamics and Photon Motion*”, Phys. Dark Universe, 41(2023) 101248 (ScienceDirect)) **I.F: 6.4**
15. Faisal Javed, G. Mustafa, **Saadia Mumtaz** and Farruh Atamurotov: “*Thermal Analysis with Emission Energy of Perturbed Black Hole in $f(Q)$ Gravity*”, Nuclear Phys. B, 990(2023)116180 (Elsevier) **I.F: 2.8**
16. Rubab Manzoor, M. Awais Sadiq and **Saadia Mumtaz**: “*Cluster of Stars in $f(G, T)$ Gravity*”, Phys. Scr. 98(2023) 025011 (IOP Science) **I.F: 2.6**

2022:

17. **Saadia Mumtaz**, Rubab Manzoor, Saqlain Bajwa and Ayesha Ikram: “*Dissipative Charged Homologous Model for Cluster of Stars in $f(R, T)$ Gravity*”, Phys. Dark Universe, 37 (2022) 101096 (ScienceDirect)) **I.F: 6.4**
18. Faisal Javed, **Saadia Mumtaz**, G. Mustafa, Ibrar Hussain and Wu-Ming Liu: “*New Wormhole Models with Stability Analysis via Thin-shell in Teleparallel Gravity*”, Eur. Phys. J. C, 82(2022)825 (Springer) **I.F: 4.8**
19. Rubab Manzoor, **Saadia Mumtaz** and Daoud Intizar: “*Dynamics of Evolving Cavity in Cluster of Stars*”, Eur. Phys. J. C, 82(2022)739 (Springer) **I.F: 4.8**
20. M. Awais Sadiq, Rubab Manzoor and **Saadia Mumtaz**: “*Collapsing Axial System and $f(G, T)$ Gravity*”, Int. J. Mod. Phys. D 31(2022)2250044 (World Scientific) **I.F: 2.1**
21. Q.A. Mughani, **Saadia Mumtaz**, Wardat us Salam and Ayesha Ikram: “*Greybody Factor and Thermal Fluctuations of Rotating Black Hole with the Perfect Fluid Dark Matter*” Int. J. Mod. Phys. D 31(2022)2250046 (World Scientific) **I.F: 2.1**

2021:

22. **Saadia Mumtaz**: “*Charged Thin-Shell Wormholes with Quintessence Effects*”, Int. J. Mod. Phys. A 36(2021)2150183 (World Scientific) **I.F: 1.2**

2020:

23. M. Sharif, **Saadia Mumtaz** and Faisal Javed: “*Dynamics of Thin-Shell Wormholes with Rotational Effects*”, Int. J. Mod. Phys. A 35(2020)2050030 (World Scientific) **I.F: 1.2**

2019:

24. M. Sharif and **Saadia Mumtaz**: “*Rotating Thin-shell Wormholes with Scalar Field*”, Mod. Phys. Let. A 34(2019)1950206 (World Scientific) **I.F: 1.6**
25. M. Sharif and **Saadia Mumtaz**: “*Stability of Universe Model Coupled with Phantom and Tachyon Fields*”, Adv. High Energy Phys. 2019(2019)6582470 (Wiley) **I.F: 1.1**

2018:

26. M. Sharif and **Saadia Mumtaz**: “*Phase Space Analysis for Anisotropic Universe with Nonlinear Bulk Viscosity*”, Gen. Relativ. Gravit. 50(2018)63 (Springer). **I.F: 2.8**
27. M. Sharif and **Saadia Mumtaz**: “*Stability Analysis of Bulk Viscous Cosmology*”, EPJ Web of Conferences 168 (2018) 08006. Proc. Joint International Conference of ICGAC-XIII and IK-15 on Gravitation, Astrophysics and Cosmology, South Korea.
28. M. Sharif and **Saadia Mumtaz**: “*Stability of Thin-Shell Wormholes*”, Proc. 14th Regional Conference on Mathematical Physics, 60(2018) (World Scientific). DOI: 10.1142/9789813224971_0007.

2017:

29. M. Sharif and **Saadia Mumtaz**: “*Stability of Accelerated Expansion in Nonlinear Electrodynamics*”, Eur. Phys. J. C 77(2017)136 (Springer). **I.F: 4.8**
30. M. Sharif and **Saadia Mumtaz**: “*Dynamical Instability of Charged Gaseous Cylinder*”, Mon. Not. R. Astron. Soc. 471(2017)1215 (Oxford Academic). **I.F: 4.8**
31. M. Sharif and **Saadia Mumtaz**: “*Dynamics of Thin-Shell Wormholes with Different Cosmological Models*”, Int. J. Mod. Phys. D 26(2017)1741007 (World Scientific). **I.F: 2.1**
32. M. Sharif and **Saadia Mumtaz**: “*Stability Analysis of Bulk Viscous Anisotropic Universe Model*”, Astrophys. Space Sci. 362(2017)205 (Springer). **I.F: 1.5**
33. M. Sharif and **Saadia Mumtaz**: “*Stability Analysis of an Oscillating Cylinder*” Eur. Phys. J. Plus 132(2017)436 (Springer). **I.F: 2.9**
34. M. Sharif and **Saadia Mumtaz**: “*Stability of Thin-Shell Wormholes from Regular ABG Black Hole*”, Eur. Phys. J. Plus 132(2017)26 (Springer). **I.F: 2.9**

2016:

35. M. Sharif and **Saadia Mumtaz**: “*Stability of the Regular Hayward Thin-Shell Wormholes*”, Adv. High Energy Phys. 2016(2016)2868750 (Wiley). **I.F: 1.1**
36. M. Sharif and **Saadia Mumtaz**: “*Dynamical Instability of Gaseous Sphere in the Reissner-Nordström Limit*”, Gen. Relativ. Gravit. 48(2016)92 (Springer). **I.F: 2.8**
37. M. Sharif and **Saadia Mumtaz**: “*Influence of Nonlinear Electrodynamics on Stability of Thin-Shell Wormholes*”, Astrophys. Space Sci. 361(2016)218 (Springer). **I.F: 1.5**
38. M. Sharif and **Saadia Mumtaz**: “*Linearized Stability of Cylindrical Thin-Shell Wormholes*”, Can. J. Phys. 94(2016)158 (NRC Research Press). **I.F: 1.1**

2014:

39. M. Sharif and **Saadia Mumtaz**: “*The Schwarzschild-de Sitter and Anti-de Sitter Thin-Shell Wormholes and their Stability*”, Adv. High Energy Phys. 2014(2014) 639759 (Wiley). **I.F: 1.1**
40. M. Sharif and **Saadia Mumtaz**: “*Effects of Charge on the Stability of Thin-Shell Wormholes*”, Astrophys. Space Sci. 352(2014)729 (Springer) **I.F: 1.5**

Book Chapters (Published)

41. H. Asghar et. al: “*Graphene-Based Functional Hybrids: Design and Technological Applications*”, Book Title: Graphene-Recent Advances, Future Perspective and Applied Applications. IntechOpen, United Kingdom (2022).
42. S. Baig et. al: “*Introductory Chapter: Brief Scientific Description to Carbon Allotropes- Technological Perspective*”, Book Title: Graphene - A Wonder Material for Scientists and Engineers, IntechOpen, United Kingdom (2022).

Research Project Grants

- National Research Project for Universities (NRPU) from the Higher Education Commission entitled “*Extended Theory of Gravity and Stellar Evolution*” as a Co-principal investigator (2022-2025, Completed).
- A research project from University of the Punjab entitled “*Physical Insights of Traversable Wormholes*” as a principal investigator (2022-2023, Completed).
- A research project from University of the Punjab entitled “*Some Dynamical Issues in Modified Theories of Gravity*” as a principal investigator (2021-2022, Completed).

MS, M.Phil/PhD Students Supervised

- **Umair Sarwar**; Thesis Title: *Evolution of Cluster of Stars in $f(R)$ Gravity* (M.Phil, 2020)
- **Ansa Sultana**; Thesis Title: *Study of Compact Massive Anisotropic Stellar in High Curvature Gravity* (MPhil, 2020)
- **Saqlain Bajwa**; Thesis Title: *Study of Homologous Cluster of Stars in $f(R, T)$ Gravity* (M.Phil, 2021)
- **Muhammad Aamir**; Thesis Title: *Expansion-Free Cluster of Stars in $f(G, T)$ Gravity* (MPhil, 2021)
- **Aneesa Zulfqar**; Thesis Title: *Anisotropic Stellar Evolution and $f(G, T)$ Gravity* (M.Phil, 2023)
- **M. Wasee Shahid**; (PhD in progress, Synopsis Approved)

Conferences/Seminars Attended

- **Conference on General Relativity and Gravitation**, Department of Mathematics, University of the Punjab, Lahore (February 11-13, 2011)
- **Lecture Series on Cosmology**, Department of Mathematics, University of the Punjab, Lahore (November 08-09, 2013)
- **Symmetries, Differential Equations and Applications II**, School of Natural Sciences (SNS), National University of Sciences and Technology, Islamabad (January 27-30, 2014)
- **International Conference on Relativistic Astrophysics**, Member organizing committee, Department of Mathematics, University of the Punjab, Lahore, (February 10-14, 2015)
- **14th Regional Conference on Mathematical Physics**, Quaid-e-Azam University, Islamabad (November 09-14, 2015)
- **Public Lecture on Science and Meditation**, Department of Mathematics, University of the Punjab, Lahore, (September 29, 2016)
- **4th National Conference on Space Science and Technology**, ISPA, University of Karachi, Karachi (October 07-09, 2016)
- **Workshop on Relativistic Astrophysics and Cosmology**, Department of Mathematics, COMSATS, Institute of

- Information Technology, Lahore (November 24-25, 2016).
- **National Conference on Gravitation and Cosmology (Conference Secretary)**, Department of Mathematics, University of the Punjab, Lahore (November 26, 2016).
 - **International Conference on Mathematics and Applications**, CASPAM, Bahauddin Zakariya University, Multan (November 06-07, 2017)
 - **Symposium on Recent Developments in Theoretical Physics**, The National Center for Mathematics, G.C. University, Lahore (November 22, 2017)
 - **29th International Texas Symposium on Relativistic Astrophysics**, CTICC - Cape Town, South Africa (December 03-08, 2017)
 - **Summer School on Cosmology**, International Center for Theoretical Physics (ICTP), Trieste, Italy (June 18-29, 2018)
 - **Conference on Shedding Light on the Dark Universe with Extremely Large Telescopes**, International Center for Theoretical Physics (ICTP), Trieste, Italy (July 02-06, 2018)
 - **Weekly Departmental Seminar Series**, Department of Mathematics, University of the Punjab, Lahore (2012-2018)
 - **1st PU International Conference on Gravitation and Cosmology**, Department of Mathematics, University of the Punjab, Lahore-Pakistan (January 27-31, 2019)
 - **5th UMT International Conference on Pure and Applied Mathematics**, Centre for Mathematics and its Applications, University of Management and Technology, Lahore (March 29-31, 2019)
 - **6th UMT International Conference on Pure and Applied Mathematics**, Centre for Mathematics and its Applications, University of Management and Technology, Lahore (February 21-23, 2020)
 - **16th Marcel Grossmann Meeting**, Italy (July 05-10, 2021)
 - **4th PU International Conference on Gravitation and Cosmology** (Member Local Organizing Committee), Department of Mathematics, University of the Punjab, Lahore-Pakistan (November 22-25, 2021)
 - International Webinar on **Recent Research Trends in Gravity**, Department of Physics, Zhejiang Normal University, China (November 30, 2022)
 - **17th National Symposium on Frontiers in Physics**, GC University, Lahore-Pakistan (December 01-03, 2022)
 - International Webinar on **Recent Trends in Applied Mathematics & Physics**, Department of Mathematics, Lahore College for Women University, Lahore-Pakistan (December 08-09, 2022)
 - **International Conference on Gravitation and Cosmology**, Department of Mathematics & Statistics, The University of Lahore, Lahore-Pakistan (January 29-31, 2024)
 - **4th International Conference on Physical Sciences and Engineering** (ICPSE-2024) as Invited Speaker, Khawaja Farid Khan University of Engineering and Information Technology, RYK-Pakistan (February 14-16, 2024).
 - **International Symposium on Extended Theory of Gravity and Stellar Evolution (As Principal Organizer)** to be held at Department of Mathematics, University of Management and Technology, Lahore (May 20, 2024)
 - **3rd International Conference of Sciences, Revamped Scientific Outlook of 21st Century 2024**, Rawalpindi Women University, Rawalpindi-Pakistan (November 14, 2024).
 - An awareness seminar for students on Stress Management (Organized), ICET, University of the Punjab, Lahore (January 2026)

Talks Delivered

- **Linearized Stability of Cylindrical Thin-Shell Wormholes** at Department of Mathematics, University of the Punjab, Lahore-Pakistan; May 27, 2014.
- **Thin-Shell Wormhole Solutions and their Stability** at Department of Mathematics, University of the Punjab, Lahore-Pakistan; June 19, 2014.
- **Stability Analysis: An Overview in General Relativity** at Department of Mathematics, University of the Punjab, Lahore-Pakistan; October 07, 2015.
- **Stability of Thin-Shell Wormholes** in 14th Regional Conference on Mathematical Physics held at Quaid-e-Azam University, Islamabad-Pakistan; November 09-14, 2015.
- **Phase Space Analysis of Nonlinear Bulk Viscous Cosmology** in 4th National Conference on Space Science and Technology held at ISPA, University of Karachi, Karachi-Pakistan; October 07-09, 2016.
- **Phase Space Analysis for Anisotropic Universe with Nonlinear Bulk Viscosity** at Department of Mathematics, University of the Punjab, Lahore-Pakistan; November 23, 2016.
- **Stability Analysis of Thin-Shell Wormholes from Regular Black Hole** at Department of Mathematics, University of the Punjab, Lahore-Pakistan; July 19, 2017.
- **Compact Objects and Wormholes; Insights and Enigmas** in International Conference on Mathematics and Applications held at CASPAM, Bahauddin Zakariya University, Multan-Pakistan; November 06-07, 2017.
- **Phase Space Analysis of the Expanding Universe Model** in 29th International Texas Symposium on Relativistic Astrophysics held at CTICC, Cape Town, South Africa; December 03-08, 2017.
- **Stability Analysis of Celestial Objects and Cosmos** at Department of Mathematics, University of the Punjab, Lahore-Pakistan; February 12, 2018.
- **Phase Space Analysis of Bulk Viscous Cosmology** in Summer School on Cosmology held at ICTP, Trieste-Italy, June 25, 2018.
- **Dynamical Analysis of Oscillating Gaseous System** in 1st PU International Conference on Gravitation and Cosmology held at Department of Mathematics, University of the Punjab, Lahore-Pakistan; January 27-31, 2019.

- **Insights of Stellar Evolution** in 5th UMT International Conference on Pure and Applied Mathematics, Centre for Mathematics and its Applications, University of Management and Technology, Lahore-Pakistan; March 29-31, 2019.
- **Stability Analysis of the Viscous Universe Model** in 6th UMT International Conference on Pure and Applied Mathematics, Centre for Mathematics and its Applications, University of Management and Technology, Lahore-Pakistan; February 21-23, 2020.
- **Exploring an Evolutionary Mechanism in Gaseous System** in International Conference on Gravitation and Cosmology, Department of Mathematics & Statistics, The University of Lahore, Lahore-Pakistan; January 29-31, 2024.
- **Mysteries of Stellar Objects; From Beginning to End** at 4th International Conference on Physical Sciences and Engineering (ICPSE-2024), Khawaja Farid Khan University of Engineering and Information Technology, RYK-Pakistan, February 14-16, 2024.
- **Physical Aspects of Stellar Clusters** at 3rd International Conference of Sciences, Revamped Scientific Outlook of 21st Century 2024, Rawalpindi Women University, Rawalpindi-Pakistan, November 14, 2024.

Achievements/Honors/Trainings

- HEC Approved PhD Supervisor (February 2021- *to date*)
- Performance based increment award (PBI)-TTS, University of the Punjab, Lahore, Pakistan (2022-2025)
- External Examiner of several Public and Private Sector Universities for Viva Voce of M. Phil students (*2020- date*)
- Scholarship holder of Indigenous Ph.D. Fellowship under Higher Education Commission-Pakistan, Phase II, Batch III (2015-2018).
- A highly learning visit to Cape Town fully funded by Punjab Higher Education Commission-Pakistan to present my research work at the 29th International Texas Symposium on Relativistic Astrophysics, Cape Town, South Africa (December 03-08, 2017).
- Selected as a young researcher for a highly learning visit to attend “*Summer School on Cosmology*” and “*Conference on Shedding Light on the Dark Universe with Extremely Large Telescopes*” and present my research work, ICTP, Trieste, Italy (Fully Funded by ICTP, June 18, 2018 - July 06, 2018)
- Merit Scholarship holder at University during BS.
- Principal organizer, International Symposium on Extended Theory of Gravity and Stellar Evolution, UMT-Lahore (2024)
- Secretary of Conference on Gravitation & Cosmology, Dept. of Mathematics, University of the Punjab, Lahore-Pakistan (2016)
- Nominated for National Outreach Program for Faculty by NAHE, HEC (January 19 - February 11, 2026).

Professional Affiliations/Memberships

- Full member of the Organization for Women in Science for the Developing World (OWSD), Italy (July 2020-*to date*)
<https://owsd.net/>.
- Member of OWSD-Pakistan Chapter.
- Member of “The Group of Gravitation and Cosmology” Department of Mathematics, University of the Punjab, Lahore.
<http://gdc.pu.edu.pk/>.
- Reviewer of Scientific International Journals:
 - Physics of the Dark Universe
 - European Physical Journal C
 - European Physical Journal Plus
 - Scientific Reports
 - International Journal of Theoretical Physics
 - Advances in High Energy Physics
 - Frontiers in Astronomy and Space Sciences
 - International Journal of Modern Physics A
 - Advances in Astronomy
 - International Journal of Astronomy and Astrophysics
 - Frontiers in Physics
 - Journal of Mathematical Physics

Computer & Software Skills

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|---------------|----------------------------|
| Math Packages | Mathematica, Maple |
| OS | Windows |
| Typography | MS Word, Powerpoint, Latex |

Countries Visited

- South Africa
- Italy
- Qatar

Professional References

- Will be furnished as per requirement.