CURRICULUM VITAE

NAME: FATHER'S NAME: NATIONALITY: ADDRESS:

PHONE: E_MAIL ADDRESS: URL: MUHAMMAD SHARIF (T.I.) JUMMAH KHAN



PAKISTANI DEPARTMENT OF MATHEMATICS, UNIVERSITY OF THE PUNJAB, LAHORE-54590, PAKISTAN + 92 42 99232026, +92 3334231696 <u>msharif.math@pu.edu.pk</u>, hasharif@yahoo.com <u>http://faculty.m-sharif.pu.edu.pk/</u> https://en.wikipedia.org/wiki/Muhammad_Sharif_(cosmologist)

RESEARCH SUMMARY

Civil Award:		Tamgha-i-Imtiaz
Total Research papers in I	Impact Factor journals:	612
Cumulative IF:	1 0	1477
Cumulative citations:		12000
h-index:		50
i10-index:		362
ORCID ID: https://		id.org/0000-0001-6845-3506
Among World's Top 2%	researchers in Stanford Unive	ersity's list (2020, 2021)
Lectures delivered in Loc	al/International Conferences:	118
PhD Supervised: 29	PhD in Progress:	04
MPhil Supervised: 82	MPhil in Progress:	04
A complete list of research paper	s can be seen at the following	link.
http://pu.edu.pk/images/publicati	on/1408596083423-Pub.pdf	

I. ACADEMIC QUALIFICATIONS

<u>Degree</u>	Date	Institutions	Subject(s)
BSc	Nov. 1983	Islamia University	Maths A, B Courses
		Bahawalpur	and Physics
MSc	Dec. 1985	Quaid-i-Azam	Applied Mathematics
		University Islamabad	
MPhil	Nov. 1987	-do-	Applied Mathematics
PhD	Dec. 1991	-do-	Applied Mathematics
			(Relativity)

II. FIELDS OF INTEREST

Gravitational Theory, Astrophysics and Cosmology

III. EXPERIENCE

A. ACADEMIC EXPERIENCE:

- 1. **Tenured Professor** at Department of Mathematics, University of the Punjab, Lahore from **December 21, 2012 to to-date**.
- 2. **Professor (TTS)** at Department of Mathematics, University of the Punjab, Lahore from **April 28, 2008 to to-date**.
- 3. **Professor** at Department of Mathematics, University of the Punjab, Lahore from **April 23, 2005 to to-date**.
- 4. **Associate Professor** at Department of Mathematics, University of the Punjab, Lahore from **August 25, 2001 to April 22, 2005**.
- 5. Assistant Professor at Department of Mathematics, University of the Punjab, Lahore from Nov. 30, 1995 to August 24, 2001.
- Assistant Professor (Applied Mathematics) at the Institute of Chemical Engg. & Technology, University of the Punjab, Lahore from Feb. 22, 1994 to Nov. 29, 1995.
- 7. **Research Officer** at Department of Mathematics, Quaid-i-Azam University Islamabad under the Pakistan Science Foundation Project PSF/RES/C-QU/MATHS (16) from June 01, 1989 to May 31, 1992.
- 8. **Senior Research Assistant** at Department of Mathematics, Quaid-i-Azam University Islamabad from Dec. 17, 1987 to Dec. 16, 1991.
- 9. **Junior Research Assistant** at Department of Mathematics, Quaid-i-Azam University Islamabad from Dec. 24, 1985 to Dec. 16, 1987.

B. ADMINITRATIVE EXPERIENCE:

- 1. **Dean,** Faculty of Science, University of the Punjab, Lahore from **April 03, 2019** to to-date.
- 2. Chairman, Department of Mathematics, University of the Punjab, Lahore from May 16, 2013 to May 15, 2019.
- 3. **Convener**, Board of Studies in Mathematics, University of the Punjab from **May 16**, **2013 to May 15**, **2019**.
- 4. **Convener**, Board of Faculty of Science, University of the Punjab from **April 03**, **2019 to to-date**.

- 5. Coordinator, Departmental Internet Services during Oct. 1998-Feb. 2000.
- 6. **Coordinator**, MPhil Program from Oct. 1998 and PhD Program from **April** 2008-May 15, 2013.
- 7. Coordinator, Departmental Purchase Committee from Dec. 2004-Feb. 2010.
- 8. Member, Departmental Purchase Committee from March 2007-May 15, 2013.
- 9. Member, Board of Studies in Mathematics, University of the Punjab from August 25, 2001 to May 15, 2013.
- 10. **Member**, Board of Faculty of Science, University of the Punjab from **April 23**, **2005 to to-date**.
- 11. **Member**, Senate, University of the Punjab from **April 23, 2005 to to-date**.
- 12. **Member**, Academic Council, University of the Punjab from **April 23, 2005 to to-date**.
- 13. Coordinator, Doctoral Program Committee from Nov. 2005-May 15, 2013.
- 14. **Coordinator**, Departmental Seminar Series from **August 2005-April 2008**.
- 15. Coordinator, Departmental Computer Centre from March 2007-May 15, 2012.
- 16. **Coordinator**, Departmental Scholarship Committee from March 2007-June 2010.
- 17. Member, Departmental Examination Committee from March 2005-May 15, 2013.

C. COMPUTER EXPERIENCE

(a) MS Office (b) LaTex (c) Mathematica (d) Maple.

D. TEACHING EXPERIENCE

a. Taught the following subjects:

- 1. Intermediate Mathematics Courses, i.e., Calculus etc. (FA, FSc/A.Level) at Government Gordon College;
- 2. Mathematics Courses A&B (BSc) at Government Gordon College;

- 3. Advanced Engineering Mathematics Courses (BSc Engineering) at University of the Punjab;
- 4. Applied Mathematics Courses (Post-Graduate Diploma in Chemical Technology) at University of the Punjab;
- 5. Quantum Mechanics (MSc) at University of the Punjab;
- 6. Mechanics & Special Relativity (MSc) at University of the Punjab;
- 7. Mathematics Courses (BA Honors) at University of the Punjab;
- 8. Differential Geometry (MSc) at University of the Punjab;
- 9. Fluid Mechanics (MSc) at University of the Punjab;
- 10. Calculus (BCS) at FAST and ILM;
- 11. Quantum Field Theory (MPhil) at University of the Punjab;
- 12. General Relativity & Cosmology (MPhil and PhD) at University of the Punjab;
- 13. Special Relativity and A. Dynamics (MSc) at University of the Punjab;
- 14. Mechanics (MSc) at University of the Punjab;
- 15. MS Office 2000 (Short Certificate Course) at University of the Punjab;
- 16. Vector and Tensor Analysis (BSc Honors) at University of the Punjab;
- 17. Riemannian Geometry (MPhil) at University of the Punjab;
- 18. Algebra (BSc) at University of Aberdeen, UK;
- 19. Electromagnetic Theory (MSc) at University of the Punjab;
- 20. Ordinary Differential Equations (MSc) at University of the Punjab;
- 21. Partial Differential Equations (MSc) at University of the Punjab;
- 22. General Relativity I (MPhil) at University of the Punjab;
- 23. General Relativity II (PhD) at University of the Punjab;
- 24. Classical Field Theory (PhD) at University of the Punjab;

- 25. Elastodynamics (MPhil) at University of the Punjab;
- 26. Integral Equations (PhD) at University of the Punjab;
- 27. Reading and Research-MA1 (PhD) at University of the Punjab;
- 28. Cosmology (MPhil) at University of the Punjab.

b. Delivered the following seminars:

- 1. *Transmission of Elastic Wave through a Random Layer* (Maths Department QAU 1987);
- 2. *Time Varying Forces in Relativity* (Maths Department QAU 1989);
- 3. *On the Solution of Cubic Equation* (Maths Department QAU 1989);
- 4. Extension of the pseudo-Newtonian Formalism to Time Varying Spacetimes (Maths Department QAU 1990);
- 5. *Energy in General Relativity* (Maths Department QAU 1991);
- 6. *Forces in Non-Static Spacetimes* (Maths Department QAU 1991);
- 7. *Energy in Gravitational Waves* (Physics Dept. Trakya University Edirne-Turkey 1991);
- 8. *Motion Caused by Gravitational Waves* (Maths Department QAU 1993);
- 9. Some Developments in CAGD (Institute for Studies in Theoretical Physics & Mathematics, Tehran-Iran, 1995);
- 10. An Introduction to General Relativity (Maths Department PU 1996);
- 11. Non-Static Spherically Symmetric Perfect Fluid Solutions of Einstein's Field Equations Using Different Equations of State (Maths Department QAU 1999);
- 12. *Non-Static Spherically Symmetric Perfect Fluid Solutions* (Physics Department, Hanyang University, Seoul-Korea 2000);
- 13. Classification of Kantowski-Sachs, Bianchi Types I and III Spacetimes according to their Matter Collineations (Maths Department QAU Islamabad 2002);
- 14. Classification of Spherically Symmetric Static Spacetimes according to their Matter Collineations (Maths Department, University of Aberdeen, UK 2003);

- 15. *Matter Symmetries of Spherically Symmetric Static Spacetimes* (Maths Department, University of Aberdeen, UK 2003);
- 16. *Matter Collineations of Spherically Symmetric Spacetimes* (BRITGRAV III, Ambleside, UK Sep. 2003);
- 17. *Matter Symmetries* (Maths Department LUMS, Jan. 2004);
- 18. Some Examples of Matter Symmetries (SMS Lahore, March 2004);
- 19. *Kinematic Self-Similar Solutions* (11th Reg. Conf. Tehran, May 2004);
- 20. The Determination of the Metric Tensor by Weyl and the Energy-Momentum Tensor (CAMP, NUST Rawalpindi, Oct. 2004);
- 21. Some Aspects of Carmeli's Relativity (SMS Lahore, March 4, 2005);
- 22. *Teleparallel Descriptions of Gravitation* (CAMP, NUST Rawalpindi, April 6, 2005);
- 23. Symmetries of the Energy-Momentum Tensor (30th INSC, Nathiagali, July 1, 2005);
- 24. *Relativity: An Introduction* (Maths Dept. PU, August 24, 2005);
- 25. Symmetries of the Energy Momentum Tensor: Some Basic Facts (BRITGRAV V, Oxford, UK Sep. 22, 2005);
- 26. *Matter Collineations: Some Basic Facts* (LUMS Int. Conf. on Mathematics and its Applications in Information Technology LUMS, Lahore, Nov. 29, 2005);
- 27. *Teleparallel Equivalent of Gravitation: An Overview* (Int. Conf. on Mathematics and its Applications COMSATS, Lahore, Jan. 21, 2006);
- 28. *Matter Symmetries of Non-Static Plane Symmetric Spacetimes* (12th Regional Conf. QAU, Islamabad, March 27-April 1, 2006);
- 29. *Classification of Cylindrically Symmetric Kinematic Self-Similar Solutions* (Dept. of Mathematics and Physics, Osaka City University, Japan, May 30, 2006);
- 30. *Classification of Plane Symmetric Kinematic Self-Similar Solutions* (Institute of Theoretical Physics, Rikkyo University Tokyo Japan, June 2, 2006);
- 31. *High Speed Cylindrical Collapse of Two Dust Fluids* (MGM11, Dept of Physics Freie University, Berlin Germany, July 27, 2006);

- 32. *Matter Collineations* (Maths Dept. PU, February 14, 2007);
- 33. *Symmetries of the Energy-Momentum Tensor* (SMS Lahore, March 6, 2007);
- 34. Self-Similar Solutions (All Pakistan Maths Conf. Islamabad, June 7, 2007);
- 35. *Gravitational Collapse with Cosmological Constant* (GR18, Sydney-Australia, July 9, 2007);
- 36. *Wave Properties in Schwarzschild Geometry with Isothermal Plasma* (GR18, Sydney-Australia, July 12, 2007);
- 37. An Overview of Einstein's Theory of Relativity (First Maths Conf. BZU Multan, July 28, 2007);
- 38. *Gravitational Collapse* (Maths. Dept. PU Lahore October 31, 2007);
- 39. *Gravitational Collapse with Perfect Fluid* (SMS Lahore November 6, 2007);
- 40. *Spherically Symmetric Gravitational Collapse* (SMS Lahore March 4, 2009);
- 41. *Wave Properties in Schwarzschild Magnetosphere* (NCP QAU Islamabad April 9, 2009);
- 42. *Gravitational Collapse: Expanding and Collapsing Regions* (II Italian-Pakistani Workshop on Relativistic Astrophysics, ICRANet Centre Pescara-Italy, July 9, 2009);
- 43. *Energy Contents of Plane Gravitational Waves in Teleparallel Gravity* (MGM12 UNESCO, Paris-France, July 16, 2009);
- 44. *Cosmic Censorship Conjecture* (Maths Dept. PU Lahore September 30, 2009);
- 45. *The Pseudo Newtonian Potentials* (GRG Conference Maths Dept. PU Lahore February 12, 2010);
- 46. Effects of Electromagnetic Field on Cylindrically Symmetric Perfect Fluid Collapse (GR19, Mexico City-Mexico, July 6, 2010);
- 47. *Some Interesting Consequences of f(R) Theory of Gravity* (13th Regional Conf. on Mathematical Physics Antalya, Turkey, October 27, 2010);
- 48. *Modern Cosmology and Modified Gravity Theories* (Department of Physics, Akdeniz University Antalya, Turkey, Nov. 01, 2010);

- 49. Effects of f(R) Dark Energy on the Dynamics of Gravitational Collapse (Department of Physics, Akdeniz University Antalya, Turkey, Nov. 01, 2010);
- 50. *Modified Theories of Gravity* (Institute of Mathematics, University of Aberdeen, Aberdeen Scotland, UK, June 9, 2011);
- 51. *Phantom Accretion onto a Class of Black Holes* (III Italian-Pakistani Workshop on Relativistic Astrophysics, University of Salento, Lecce-Italy, June 21, 2011);
- 52. *Tunneling of Dirac Particles* (3rd Galileo-Xu Guangoi Meeting, National Astronomical Observatories, Beijing, China, Oct. 11-15, 2011);
- 53. F(T) Gravity (NUST Conference on Mathematical Sciences, NUST Islamabad, Nov. 17, 2011);
- 54. *Cosmic Acceleration in Teleparallel Gravity* (Int. Conference on Physics and the World of Today, Karachi University, Karachi, December 22, 2011);
- 55. *Kaluza Klein Cosmology with Modified Holographic Dark Energy* (4th Winter Meeting in Particles and Physics, Physics Dept. LUMS Lahore, January 28, 2012);
- 56. *Dark Energy Models and Laws of Thermodynamics* (MGM13 Stockholm University, Stockholm-Sweden, July 03, 2012);
- 57. *Modern Cosmology* (First National Conference on Space Sciences, ISPA, University of Karachi, October 08, 2012);
- 58. *Effects of Electromagnetic Field on Shearfree Spherical Collapse* (IV Italian-Pakistani Workshop on Relativistic Astrophysics, CAMP-NUST, Islamabad-Pakistan, February 15, 2013);
- 59. f(R) Theory of Gravity (Maths Dept. PU Lahore October 02, 2013);
- 60. Bianchi Type Universe and Superpotential Reconstruction in Scalar-Tensor Cosmology (Second National Conference on Space Sciences, ISPA, University of Karachi, October 07, 2013);
- 61. *Dynamics of Bianchi Type Scalar-Tensor Cosmology* (27th Texas Symposium on Relativistic Astrophysics, Dallas, USA, December 09, 2013);
- 62. *Noether Symmetries in a Modified Scalar-Tensor Gravity* (SDEA-II, SNS-NUST Islamabad, January 27, 2014);
- 63. *Inflationary Cosmological Model* (1st National Conference on Mathematical Sciences, University of Malakand, Dir Lower, KPK, September 02, 2014);

- 64. *Warm Inflation* (Maths Dept. PU Lahore, September 24, 2014);
- 65. *Inflationary Universe Model* (Dark Side of the Universe, University of Cape Town, South Africa, November 17, 2014);
- 66. *Stability Analysis of Stellar Object* (1st UMT National Conference on Pure and Applied Mathematics, Lahore, March 07, 2015);
- 67. *Stability: Impact of Physical Factors* (The International Conference on Gravitation and Cosmology/4th Galileo-Xu Guangoi Meeting, Institute of Theoretical Physics, Beijing, China, May 07, 2015);
- 68. *Gravitational Lensing* (Maths Dept. PU Lahore, September 02, 2015);
- 69. Strong *Gravitational Lensing of a Spherically Symmetric Black Hole* (Spanish Relativity Meeting 2015, UIB, Palma de Mallorca, Spain, September 07, 2015);
- 70. *Warm Inflation with Viscous Pressure* (Third National Conference on Space Science and Technology, ISPA, University of Karachi, October 05, 2015);
- 71. *Gravitational Lensing in a String Cloud Background* (14th Regional Conference on Mathematical Physics, Quaid-i-Azam University Islamabad, November 11, 2015);
- 72. *Inflation: Some Recent Developments* (International Conference on Recent Advances in Applied Mathematics, COMSATS, Lahore, December 17, 2015);
- 73. *Thermodynamics in Modified Gravity* (1st International Conference on Pure and Applied Sciences, UMT, Lahore, March 05, 2016);
- 74. *Study of Thin-Shell Wormholes Stability* (21st International Conference on General Relativity and Gravitation, Columbia University, New York City-USA, July 13, 2016);
- 75. *Thin-Shell Wormholes Supported by Different Cosmological Models* (V Italian-Pakistani Workshop on Relativistic Astrophysics, University of Salento, Lecce-Italy, July 22, 2016);
- 76. Thin-Shell Wormholes (Maths Dept. PU Lahore, August 17, 2016);
- 77. *Thermodynamics and Gravity* (Fourth National Conference on Space Science and Technology, ISPA, University of Karachi, October 08, 2016);

- 78. *Noether Symmetries and their Applications* (One Day National Seminar on Advancement in Pure and Applied Mathematics, GC University Faisalabad, January 25, 2017);
- 78. *Noether Symmetries and Modified Gravity* (Third UMT International Conference on Pure and Applied Mathematics, Faletti's Hotel, Lahore March 04, 2017);
- 79. *Stability of Circular Orbits around a Tidal Charged Black Hole* (641th WE-Heraeus-Seminar "Do Black Holes Exist?-The Physics and Philosophy of Black Holes", Physics Centre Bad Honnef, Germany, April 26, 2017);
- 80. *Dynamics of Particles around Black Hole* (Mathematical Physics and General Relativity Symposium in Honor of Professor Ivor Robinson, UTD-Dallas, USA, May 08, 2017);
- 81. *Study of GSLT in Curvature-Matter Coupling Gravity* (International Conference on Gravitation: Joint Conference of ICGAC-XIII and IK15, Ehwa Women University Seoul, S. Korea, July 03, 2017;
- 82. *Stability Analysis of Bulk Viscous Cosmology* (International Conference on Gravitation: Joint Conference of ICGAC-XIII and IK15, Ehwa Women University Seoul, S. Korea, July 07, 2017;
- 83. What Can We Learn from Black Holes? (Maths Dept. PU Lahore, August 16, 2017);
- 84. *Gravitational Collapse in Modified Theory* (Fifth National Conference on Space Science and Technology, ISPA, University of Karachi, October 09, 2017);
- 85. *Black Holes: Some Interesting Outcomes* (International Conference on Mathematics and Applications, CASPAM, Bahauddin Zakariya University, Multan, November 06, 2017);
- 86. *Gravitational Collapse in f(R) Gravity* (29th International Texas Symposium on Relativistic Astrophysics, Cape Town, South Africa, December 06, 2017);
- 87. Effects of f(R) Models on the Polarization of Gravitational Waves (Gravity@Malta2018, University of Malta, Malta, January 22, 2018);
- 88. *Einstein Field Equations* (ICE-2018, University of Education, Lahore, March 17, 2018);
- 89. *Fact, Friction, or Unknown: Black Holes* (Fourth UMT International Conference on Pure and Applied Mathematics, Faletti's Hotel, Lahore March 31, 2018);

- 90. *Study of Polarization Modes in Modified Theory* (21st Capra Meeting Max Planck Institute, Potsdam-Germany June 27, 2018);
- 91. Stability of Einstein Universe in Matter-Curvature Coupling Gravity (MG15 University of Rome, Rome-Italy, July 06, 2018);
- 92. *Tilted Anisotropic Polytropes* (JGRG28 Rikkyo University, Tokyo-Japan, November 06, 2018);
- 93. *Charged Anisotropic Solutions in General Relativity* (Maths Dept. PU Lahore, January 09, 2019);
- 94. *Gravitational Decoupled Anisotropic Solutions in Modified Gravity* (6th Italian-Pakistani Workshop on Relativistic Astrophysics, NUST, Islamabad-Pakistan, January 24, 2019);
- 95. *Gravitational Decoupled Anisotropic Solutions* (ICRAAM2019, COMSATS University, Lahore Campus, February 20, 2019);
- 95. Black Holes (2nd Pak-Turk Int. Conference, GIKI, Topi, March 11, 2019);
- 96. *Null Geodesics and Gravitational Lensing* (5th UMT International Conference on Pure and Applied Mathematics, UMT, Lahore March 30, 2019);
- 97. *Dynamics of Scalar Shell for Black Holes* (10th Alexander Friedmann Int. Seminar on Gravitation and Cosmology St. Petersburg-Russia, June 27, 2019);
- 98. *Anisotropic Solutions and Minimal Geometric Deformation* (XXI Int. Meeting, Phys. Interpretations of Relativity Theory Moscow-Russia, July 02, 2019);
- 99. Stability of Anisotropic Homogeneous Cylinder (GR22 Valencia-Spain, July 09, 2019);
- 100. *Charged Gravastars in Extended Gravity* (30th International Texas Symposium on Relativistic Astrophysics, Portsmouth, UK, December 18, 2019);
- 101. *Black Holes and Gravastars* (PAS Lecture, Guest Speaker, Bacha Khan University Charsadda, KPK, February 03, 2020);
- 102. *Charged Gravastars in Curvature-Matter Coupling Gravity* (6th UMT International Conference on Pure and Applied Mathematics, UMT, Lahore February 22, 2020);
- 103. *Decoupled Charged Anisotropic Solutions* (5th International Conference on Pure and Applied Mathematics, University of Sargodha, Sargodha, February 24, 2020);

- 104. Gravastars (3rd Pak-Turk Int. Conference, GIKI, Topi, June 09, 2020) (Online);
- 105. *Compact Stars in Modified* Gravity (17th Russian Gravitational Conference International Conference on Gravitation, Cosmology and Astrophysics St. Petersburg - Russia, July 02, 2020 RUSSGRAV-17) (**Online**);
- 106. Effects of Charge on Gravastars in Modified Theory of Gravitation (The 14th International Conference on Gravitation, Astrophysics and Cosmology (ICGAC14) National Central University, Jhongli, Taiwan, August 19, 2020) (Online);
- 107. *Compact Strange Objects in Modified Gravity* (The Fourth Zeldovich Virtual Meeting, ICRANet and National Academy of Sciences of Belarus, September 09, 2020) (**Online**);
- 108. Compact Objects Nusrat (Jehan Girls College Chenab Nagar, April 06, 2021) (Online);
- 109. *Einstein Law of Gravitation* (International Conference on Impact of Mathematics in Modern Era, 2021, The Islamia University of Bahawalpur, April 08, 2021);
- 110. *Stellar Structures in Energy-Momentum Squared Gravity* (Geometric Foundations of Gravity 2021, University of Tartu-Estonia, June 30, 2021) (**Online**);
- 111. *Thermodynamics of a Charged Black Hole* (MG15 Rome-Italy, July 06, 2021) (Online);
- 112. *Noether Symmetry Technique in Modified Gravity* (XXII Int. Meeting, Phys. Interpretations of Relativity Theory Moscow-Russia, July 06, 2021) (**Online**);
- 113. Anisotropic Solutions through Decoupling in Curvature-Matter Coupling Gravity (MG15 Rome-Italy, July 09, 2021) (**Online**);
- 114. Decoupled Quark Stars in Self-interacting Brans-Dicke Gravity (Gravitex 2021 Durban-South Africa, August 12, 2021) (Online);
- 115. *Alternative Gravity and Gravastars* (Alternative Gravities and Fundamental Cosmology Conference Szczecin-Poland, September 07, 2021) (**Online**);
- 116. *Study of Compact Objects* (Tarbiat Modares University Tehran-Iran, October 20, 2021);
- 117. *Study of Stellar Objects in Modified Gravity* (4th Pak-Turk Int. Conference, UW-GIKI, November 04, 2021) (**Online**).

118. *Compact Objects by Gravitational Decoupling* (Institute of Space Science and Technology, University of Karachi, Karachi, February 28, 2022).

IV. CONFERENCES AND SEMINARS ATTENDED

- 1. All Pakistan Mathematical Conference held at Mathematics Department, Quaid-i-Azam University Islamabad, Oct. 1-4, 1985.
- 2. Third Regional Conference on Mathematical Physics *SUPERSTRINGS AND RELATIVITY* held at Physics Department, Quaid-i-Azam University Islamabad, Feb. 18-24, 1989.
- 3. Third Albert Einstein Seminar held at Mathematics Department, Quaid-i-Azam University Islamabad, Feb. 25-27, 1989.
- 4. One day Arif-uz-Zaman Symposium held at Physics Department, Quaid-i-Azam University Islamabad, Nov. 27, 1989.
- 5. School on Fundamental Physics and Cosmology held at Physics Department, Quaid-i-Azam University Islamabad, March 11-25, 1990.
- 6. Third National Symposium on Frontiers in Physics held at Physics Department, Quaid-i-Azam University Islamabad, Nov. 26-29, 1990.
- 7. Mini Workshop on Relativity, Astrophysics and Cosmology held at Mathematics Department, Quaid-i-Azam University Islamabad, Oct. 15-17, 1991.
- 8. Fifth Regional Conference on Mathematical Physics held at Physics Department, Trakya University Edirne-Turkey, Dec. 15-22, 1991.
- 9. Fourth National Symposium on Frontiers in Physics held at Physics Department, Quaid-i-Azam University Islamabad, April 15-19, 1992.
- 10. BCSPIN Pakistan Preparatory School held at Physics Department, Quaid-i-Azam University Islamabad, Nov. 25-Dec. 17, 1992.
- 11. International Workshop on Experimental Gravitation held at Nathiagali, June 26-July 01, 1993.
- 12. All Pakistan Mathematical Conference held at Mathematics Department, University of Engineering & Technology Lahore, March 11-14, 1995.
- 13. Seventh Regional Conference on Mathematical Physics (Caspian Conference) held at the Institute for Studies in Theoretical Physics & Mathematics, Tehran-Iran, Oct. 15-22, 1995.

- 14. Summer School in High Energy Physics and Cosmology held at International Centre for Theoretical Physics, Trieste-Italy, June 10-July 26, 1996.
- 15. BCSPIN Pakistan Preparatory School held at Physics Department, Quaid-i-Azam University Islamabad, Jan. 4-23, 1997.
- 16. Symposium on Relativity, Astrophyics and Cosmology held at Mathematics Department, Quaid-i-Azam University Islamabad Nov. 18-20, 1999.
- 17. Workshop on Applications of Symmetry Methods held at Mathematics Department, Quaid-i-Azam University Islamabad Oct. 15-17, 2002.
- 18. The Robert Cormack Bequest Meeting for Astronomy held at Department of Mathematical Sciences, University of Aberdeen, Scotland, UK March 31, 2003.
- 19. The Third British Gravity Meeting (BRITGRAV III) held at Ambleside Conference Centre, Ambleside with Lancaster University, UK Sep. 12-14, 2003.
- 20. World Conference on 21st Century Mathematics 2004 held at School of Mathematical Sciences, Lahore, March, 18-20, 2004.
- 21. 11th Regional Conference on Mathematical Physics and IPM Spring Conference held at the Institute for Studies in Theoretical Physics & Mathematics (IPM), Tehran-Iran, May, 3-6, 2004.
- 22. 17th International Conference on General Relativity and Gravitation held at RDS Dublin-Ireland, July 18-23, 2004.
- 23. Second Symposium on Relativity, Astrophysics and Cosmology held at Centre for Advanced Mathematics and Physics (CAMP), National University of Sciences and Technology, Rawalpindi Oct. 4-6, 2004.
- 24. Second World Conference on 21st Century Mathematics 2005 held at School of Mathematical Sciences, Lahore, March, 4-6, 2005.
- 25. 30th International Nathiagali Summer College on Physics and Contemporary Needs held at Nathiagali, June 27-July 2, 2005.
- 26. The Fifth British Gravity Meeting (BRITGRAV V) held at St. Catherine's College, Oxford, UK Sep. 20-23, 2005.
- 27. LUMS International Conference on Mathematics and its Applications in Information Technology held at LUMS, Lahore, Nov. 27-30, 2005.
- 28. International Conference on Mathematics and its Applications held at COMSATS, Lahore, Jan. 20-22, 2006.

- 29. 12th Regional Conference on Mathematical Physics held at Quaid-i-Azam University Islamabad, March 27-April 1, 2006.
- 30. International Symposium on Relativity held at University of the Punjab Lahore, April 6, 2006.
- 31. 11th Marcel Grossmann Meeting held at Freie University, Berlin Germany, July23-29, 2006.
- 32. Third World Conference on 21st Century Mathematics 2007 held at School of Mathematical Sciences, Lahore, March, 5-7, 2007.
- 33. All Pakistan Mathematical Conference Islamabad, June 7-9, 2007.
- 34. 18th International Conference on General Relativity and Gravitation held at Sydney Convention and Exhibition Centre Sydney-Australia, July 8-14, 2007.
- 35. First Mathematics Conference held at CASPAM, BZU Multan, July 27-28, 2007.
- 36. LUMS 2nd International Conference on Mathematics held at LUMS, Lahore, March 9-12, 2008.
- 37. Eleventh National Symposium on Frontiers in Physics held at GC University Lahore, January 29-31, 2009.
- 38. Fourth World Conference on 21st Century Mathematics 2009 held at School of Mathematical Sciences, Lahore, March, 4-7, 2009.
- 39. 1st NCP Scientific Spring 2009 held at NCP QAU, Islamabad, April 6-9, 2009.
- 40. II Italian-Pakistani Workshop on Relativistic Astrophysics, ICRANet Centre, Pescara-Italy, July 8-10, 2009.
- 41. 12th Marcel Grossmann Meeting held at UNESCO, Paris-France, July12-18, 2009.
- 42. Conference on General Relativity and Gravitation at University of the Punjab February 11-13, 2010.
- 43. 19th International Conference on General Relativity and Gravitation held at Mexico City-Mexico, July 5-9, 2010.
- 44. 13th Regional Conference on Mathematical Physics held at Antalya, Turkey, October 27-31, 2010.
- 45. Twelfth National Symposium on Frontiers in Physics held at GC University Lahore, February 02-04, 2011.

- 46. III Italian-Pakistani Workshop on Relativistic Astrophysics, University of Salento, Lecce-Italy, June 20-22, 2011.
- 47. 3rd Galileo-Xu Guangqi Meeting, National Astronomical Observatories, Beijing, China, Oct. 11-15, 2011.
- 48. NUST Conference on Mathematical Sciences, NUST Islamabad, Nov. 17-19, 2011.
- 49. International Conference on Physics and the World of Today, Department of Physics, University of Karachi, Karachi, December 21-22, 2011.
- 50. 4th Winter Meeting in Particles and Physics, Department of Physics, LUMS Lahore, January 27-28, 2012.
- 56. 13th Marcel Grossmann Meeting held at Stockholm University, Stockholm-Sweden, July 01-07, 2012.
- 57. First National Conference on Space Sciences, ISPA, University of Karachi, October 08-09, 2012.
- 58. IV Italian-Pakistani Workshop on Relativistic Astrophysics, CAMP-NUST, Islamabad-Pakistan, February 15-17, 2013.
- 59. Second National Conference on Space Sciences, ISPA, University of Karachi, October 07-08, 2013.
- 60. 27th Texas Symposium on Relativistic Astrophysics, Dallas, USA, December 08-13, 2013.
- 61. Symmetries, Differential Equations and Applications-II, SNS-NUST, Islamabad, January 27-30, 2014.
- 62. First National Conference on Mathematical Sciences, Department of Mathematics, University of Malakand, Chakdara, Dir Lower, KPK, September 02-04, 2014.
- 63. Dark Side of the Universe, University of Cape Town, South Africa, November 17-21, 2014.
- 64. 1st UMT National Conference on Pure and Applied Mathematics, Lahore, March 07-08, 2015.
- 65. The International Conference on Gravitation and Cosmology/4th Galileo-Xu Guangqi Meeting, Institute of Theoretical Physics, Beijing, China, May 04-08, 2015.
- 66. Spanish Relativity Meeting 2015, UIB, Palma de Mallorca, Spain, September 07-11, 2015.

- 67. Third National Conference on Space Science and Technology, ISPA, University of Karachi, October 05-06, 2015.
- 67. 14th Regional Conference on Mathematical Physics, Quaid-i-Azam University Islamabad, November 09-14, 2015.
- 68. International Conference on Recent Advances in Applied Mathematics, COMSATS, Lahore, December 17-18, 2015.
- 69. 1st International Conference on Pure and Applied Sciences, UMT, Lahore, March 05-07, 2016.
- 70. 21st International Conference on General Relativity and Gravitation, Columbia University, New York City-USA, July 11-15, 2016.
- 71. V Italian-Pakistani Workshop on Relativistic Astrophysics, University of Salento, Lecce-Italy, July 21-23, 2016.
- 72. Fourth National Conference on Space Science and Technology, ISPA, University of Karachi, October 07-09, 2016.
- 73. Third UMT International Conference on Pure and Applied Mathematics, Faletti's Hotel, Lahore March 04-06, 2017.
- 74. 641th WE-Heraeus-Seminar "Do Black Holes Exist?-The Physics and Philosophy of Black Holes", Physics Centre Bad Honnef, Germany, April 24-28, 2017.
- 75. Mathematical Physics and General Relativity Symposium in Honor of Professor Ivor Robinson, UTD-Dallas, USA, May 07-09, 2017.
- 76. International Conference on Gravitation: Joint Conference of ICGAC-XIII and IK15, Ehwa Women University Seoul, S. Korea, July 03-07, 2017.
- 77. Fifth National Conference on Space Science and Technology, ISPA, University of Karachi, October 09-10, 2017.
- 78. International Conference on Mathematics and Applications, CASPAM, Bahauddin Zakariya University, Multan, November 06-07, 2017.
- 79. 29th International Texas Symposium on Relativistic Astrophysics, Cape Town, South Africa, December 03-08, 2017).
- 80. Gravity@Malta2018, University of Malta, Malta, January 22-25, 2018).
- 81. ICE-2018, University of Education, Lahore, March 15-17, 2018).

- 82. Fourth UMT International Conference on Pure and Applied Mathematics, Faletti's Hotel, Lahore March 31-April 02, 2018.
- 83. 21st Capra Meeting Max Planck Institute, Potsdam-Germany June 25-29, 201882.
- 84. 15th Marcel Grossmann Meeting, University of Rome, Rome-Italy, July 01-07, 2018.
- 85. The 28th Workshop on General Relativity and Gravitation in Japan JGRG28, Rikkyo University, Tokyo-Japan, November 05-09, 2018.
- 86. 6th Italian-Pakistani Workshop on Relativistic Astrophysics, NUST, Islamabad-Pakistan, January 24-26, 2019.
- 86. ICRAAM2019, COMSATS University, Lahore Campus February 20-22, 2019.
- 87. 2nd Pak-Turk International Conference, GIKI, Topi March 11-13, 2019.
- 88. Fifth UMT International Conference on Pure and Applied Mathematics, UMT, Lahore March 29-31, 2019.
- 89. 10th Alexander Friedmann International Seminar on Gravitation and Cosmology St. Petersburg-Russia, June 23-28, 2019).
- 90. XXI International Meeting, Phys. Interpretations of Relativity Theory 2019 Moscow-Russia, July 01-05, 2019).
- 91. GR22 Valencia-Spain, July 07-12, 2019).
- 92. 6th Science and Technology Exchange Program (STEP) Meeting, Tehran-Iran, November 9-12, 2019).
- 93. 30th International Texas Symposium on Relativistic Astrophysics, Portsmouth, UK, December 15-20, 2019).
- 94. 6th UMT International Conference on Pure and Applied Mathematics, UMT, Lahore February 21-23, 2020.
- 95. 5th International Conference on Pure and Applied Mathematics, University of Sargodha, Sargodha, February 24-25, 2020.
- 96. 3rd Pak-Turk International Conference, GIKI, Topi June 09-10, 2020 (through ZOOM).

- 97. 17th Russian Gravitational Conference International Conference on Gravitation, Cosmology and Astrophysics St. Petersburg - Russia, June 28-July 04, 2020 RUSSGRAV-17) (through ZOOM).
- 98. The 14th International Conference on Gravitation, Astrophysics and Cosmology (ICGAC14) National Central University, Jhongli, Taiwan, August 17-21, 2020) (Online).
- 99. The Fourth Zeldovich Virtual Meeting, ICRANet and National Academy of Sciences of Belarus, September 07-11, 2020) (**Online**).
- 100. 1st International Electronic Conference on Universe (ECU 2021), February 22-28, 2021) (**Online**).
- 101. International Conference on Impact of Mathematics in Modern Era, 2021, The Islamia University of Bahawalpur, April 08, 2021).
- 102. International Workshop on Relativistic Astrophysics and Gravitation, Ulugh Beg Astronomical Institute, Tashkent, Uzbekistan, May 12-14, 2021) (**Online**).
- 103. Geometric Foundations of Gravity 2021, University of Tartu-Estonia, June 28-July 02, 2021) (**Online**).
- 104. 16th Marcel Grossmann Meeting, University of Rome, Rome-Italy, July 05-10, 2021 (**Online**).
- 105. XXII International Meeting, Phys. Interpretations of Relativity Theory 2021 Moscow-Russia, July 05-09, 2021) (**Online**).
- 106. Gravitex 2021 Durban-South Africa, August 09-12, 2021) (Online).
- 107. Alternative Gravities and Fundamental Cosmology Conference Szczecin-Poland, September 06-10, 2021) (**Online**).
- 108. 8th Science and Technology Exchange Program (STEP) Meeting, Tehran-Iran, October 19-22, 2021).
- 109. 4th Pak-Turk Int. Conference, UW-GIKI, November 03-04, 2021) (Online).
- 110. Panel Discussion on "Radicalization of Youth: Challenge for Pakistani Universities" PC Hotel, Lahore, December 20, 2021).

V. CONFERENCES ORGANIZED

1. Organized one day *International Symposium on Relativity* at University of the Punjab on April 06, 2006 (1st PUICGC).

- 2. Organized *Lecture Series on Black Holes* at University of the Punjab October 10-11, 2008.
- 3. Organized *Special Lecture on Approximate Symmetries* at University of the Punjab November 23, 2009.
- 4. Organized *Conference on General Relativity and Gravitation* at University of the Punjab February 11-13, 2010.
- 5. Organized *Lecture Series on Cosmology* at University of the Punjab November 23-27, 2010.
- 6. Organized one day *Conference on Gravitation* at University of the Punjab December 17, 2011.
- 7. Organized *Lecture Series on Cosmology* at University of the Punjab November 08-09, 2013.
- 8. Organized five days *International Conference on Relativistic Astrophysics* at University of the Punjab February 10-14, 2015 (**2nd PUICGC**).
- 9. Organized one day *Conference on Gravitation and Cosmology* at University of the Punjab November 26, 2016.
- 10. Organized five days 3rd International Conference on Gravitation and Cosmology at University of the Punjab January 27-31, 2019 (**3rd PUICGC**).
- 11. Organized four days *4th PU International Conference on Gravitation and Cosmology* at University of the Punjab November 22-25, 2021 (**4th PUICGC**).

VI. AWARDS/FELLOWSHIPS

- 1. **Merit Scholarship** awarded by Quaid-i-Azam University during M.Sc.
- 2. **Dr. Raziuddin Siddiqi Research Fellowship** awarded by Quaid-i-Azam University during M.Phil.
- 3. **Post-Doctoral Fellowship** awarded by Korea Science and Engineering Foundation (KOSEF) (2000).
- 4. **Research Productivity Award** (2001-2015) awarded by Pakistan Council for Science and Technology (PCST).
- 5. **Dr. Raziuddin Siddiqi Prize** and **Gold Medal** (2002) awarded by Pakistan Academy of Sciences.
- 6. **Post-Doctoral Fellowship** awarded by Ministry of Science & Technology (2003).

- 7. **Izaz-i-Fazeelat (Presidential Award)** awarded by Government of Pakistan (Dec. 13, 2007).
- 8. **Tamgha-i-Imtiaz** awarded by Government of Pakistan (March 23, 2008).
- 9. **Best University Teacher Award** awarded by Higher Education Commission (August 13, 2008).
- 10. **Best Research Paper Award** awarded by Higher Education Commission (December 17, 2009).
- 11. **Pakistan Academy of Sciences Gold Medal** awarded by Pakistan Academy of Sciences (December 22, 2009).
- 12. **HEC Distinguished National Professor** awarded by Higher Education Commission (November 03, 2010).
- 13. Fellow, Pakistan Academy of Sciences elected by Pakistan Academy of Sciences (November 26, 2010).
- 14. **Best Research Paper Award** awarded by Higher Education Commission (March 13, 2015).
- 15. **Pakistan Top Scientist** in all disciplines awarded by PCST during 2014 and 2015.
- 16. **Best University Teacher Award** awarded by Higher Education Commission (January 28, 2016).
- 17. Among World's Top 2% researchers in Stanford University's list (2020 and 2021).

VII. RESEARCH PROJECTS

- 1. *The pseudo-Newtonian Formalism*, Quaid-i-Azam University (1989-1992) (Completed).
- 2. *Application of the pseudo-Newtonian Formalism*, University of the Punjab (1999) (Completed).
- 3. *Effects of Electromagnetic Field on Dissipative Viscous Collapse*, University of the Punjab (2015) (Completed).
- 4. *Warm Inflation with General Dissipation Coefficient*, University of the Punjab (2016) (Completed).

- 5. *Stability Analysis and Some Interesting Cosmic Issues*, Pakistan Academy of Sciences (2016-2018) (Completed).
- 6. Some Aspects of Gravitational Collapse and Cosmic Issues in Gravitational *Theories*, Higher Education Commission (2017-2019) (Completed).
- 7. *Wormhole Solutions in Curvature-Matter Coupling Gravity*, University of the Punjab (2018) (Completed).
- 8. *Anisotropic Strange Stars in Modified Gravity*, University of the Punjab (2020) (Completed).
- 9. *Physical Viability and Stability of some Cosmological Models in Modified Gravity*, Pakistan Academy of Sciences (2020-2022) (In progress).

VIII. HONORARY POSITIONS HELD, ETC.

- 1. Conducted a Refresher Course for College teachers of Azad Kashmir at Mirpur, Feb. 1992.
- 2. Research Fellow at ICTP Trieste-Italy, July 27-August 14, 1996.
- 3. Life Member, Punjab Mathematical Society, Pakistan.
- 4. Member, All Pakistan Mathematical Association.
- 5. Third World Academy of Sciences (TWAS) Associateship for Brazil 1998-2000.
- 6. Visiting Professor at IMECC, UNICAMP, Campinas, SP, Brazil, July 20-Oct. 17, 1998 and June 01-August 31, 2000.
- 7. Supervision of Ph.D. Students under the Indigenous PhD Fellowship Program of Higher Education Commission.
- 8. Visiting Professor at Department of Mathematics, Canakkale Onsekiz Mart University, Turkey, June 17-July 19, 2002.
- 9. Member, Pakistan Mathematical Society, Pakistan.
- 10. Referee, International Journals like *General Relativity and Gravitation* etc.
- 11. Life Member, International Society of General Relativity and Gravitation.
- 12. PCST awarded *Pakistan Top Scientist* during 2005-2006, 2006-2007, 2014.
- 13. Punjab University awarded Top Scientist during 2005.

- 14. Visiting Professor at Department of Mathematics and Physics, Osaka City University, Osaka, Japan, May 27-June 4, 2006.
- 15. Life Member, Pakistan Physical Society, Pakistan.
- 16. Visiting Professor at Institute of Mathematics, University of Aberdeen, UK, June 04-July 02, 2011 under HEC program PPCR.
- 17. Member, Board of Governors, Abdus Salam School of Mathematical Sciences, GCU, Lahore from 2013-2019.
- 18. Regular Member, Selection Board, Islamia University Bahawalpur from 2015-2018.
- 19. HEC Consultancy Services for Short Study of Faculty Staff under TESP during March-June 2016.
- 20. Guest Editor, Special issue of of Advances in High Energy Physics on "Theoretical and Observational Aspects of Black Holes, Gravitational Waves, and Spacetime Singularities (TOAHS)" 2017.
- 21. Academic Editor, Advances in Astronomy from July 2020 to to-date.

IX. COUNTRIES VISITED

1. S. Korea:	Postdoctoral Fellow at Hanyang University during March 2000-
	Feb. 2001 for one year and to attend International Conference on
	Gravitation, Enwa University during July 03-07, 2017.
2. Brazil:	Visiting Professor at IMECC, UNICAMP during July-Oct. 1998
	and June-August 2000 for three months each.
3. UAE:	Excursion during June 1996, June 2002, Nov. 2014, July 2017 and
	Jan. 2018.
4. Iran:	To attend Regional Conferences during Oct. 1995 for two weeks,
	during May 2004 for one week. 6 th STEP meeting during Nov. 9-
	12 2019 and 8 th STEP meeting during October 19-22 2021
5 Iroland	To attend 17 th International Conference on General Polativity and
J. II Clanu.	Creativity and Creativity and Creativity and Creativity and
. •	Gravitation during July 18-25, 2004 for one week.
6. Japan:	Visiting Professor at Department of Mathematics and Physics,
	Osaka City University, Osaka, Japan, May 27-June 4, 2006, To
	attend JGRG28, Nov. 05-09, 2018.
7. Germany:	To attend 11 th Marcel Grossmann Meeting during July 23-29, 2006
·	for one week; to attend 641th WE-Heraeus-Seminar "Do Black
	Holes Exist?-The Physics and Philosophy of Black Holes" during
	April 24-28 2017 for one week: to attend Capra 21 during June
	25 20 2019
0 4 <i>i</i> 11	23-29, 2010.
8. Australia:	To attend 18 th International Conference on General Relativity and
	Gravitation during July 8-14, 2007 for one week.

9. Switzerland:	Excursion during July 2009 and June 2018 for two days each.
	CERN Visit from September 30-October 03, 2019.
10. France:	To attend 12 th Marcel Grossmann Meeting during July 12-18, 2009
	for one week.
11. Mexico:	To attend 19 th International Conference on General Relativity and
10 1/ 1	Gravitation during July 5-9, 2010 for one week.
12. Italy:	To attend a Summer School at ICTP during June-August 1996 for
	three months; to attend II, III and V Italian-Pakistani Workshops
	2016 respectively for one week each to attend MGV during July
	2010, respectively for one week each, to attend MOV during Jury 01_07_2018
13 UK.	Postdoctoral Fellow at University of Aberdeen Scotland during
15. 01	Nov 2002-Oct 2003 for one year: to attend BritGray V in Sep
	2005 for one week: Visiting Professor at University of Aberdeen.
	Scotland during June 04-July 02 2011 for one month.
14. Saudi Arabia:	To perform Umrah during July 1998, June 2002, Sep. 2005; July
	2006 for 12 days; June/July 2008 for two weeks; June 2012 for two
	weeks; Hajj during Dec. 2004-Jan. 2005 for 6 weeks; Hajj during
	August 2018 for 3 weeks.
15. Sweden:	To attend 13 th Marcel Grossmann Meeting during July 01-7, 2012
	for one week.
16. Norway:	Excursion during July 2012 for five days.
17. USA:	10 attend 2/th Texas Symposium on Relativistic Astrophysics,
	December 08-15, 2015 for one week; to allend GK21, July 08-18, 2016: to attend Mathematical Physics and General Palativity
	Symposium in Honor of Professor Ivor Robinson UTD-Dallas
	during May 07-09, 2017.
18. S. Africa:	To attend "Dark Side of the Universe" Conference during
	November 17-21, 2014 and 29 th International Texas Symposium
	on Relativistic Astrophysics during December 02-09, 2017.
19. China:	To attend 3 rd Galileo-Xu Guangoi Meeting, Oct. 11-15, 2011 for a
	week; to attend 4th Galileo-Xu Guangoi Meeting, May 04-08,
AA T	
20. Turkey:	To attend a Conference during Dec. 1991 for three weeks; visiting
	one and half month; to attend a Pagional Conference during Oct
	2010 for ten days: excursion during September 05-06, 2015 for
	two days.
21. Spain:	To attend "Spanish Relativity Meeting 2015" Conference during
	September 07-11, 2015 for one week. To attend GR22 during July
	05-13, 2019.
22. Malta:	To attend "Gravity @Malta2018" Conference during January 21-
	25, 2018 for five days.
23. Denmark:	Excursion during June 2018 for two days.
24. Finland:	Excursion during June 2018 for two days.

25. Russia: To attend "10th A. Friedmann Meeting and PIRT2019" during June 26-July 05, 2019 for 10 days.

SUPERVISION OF MPHIL/PHD STUDENTS:

SUPERVISED PHD THESIS TITLES:

- 1. *Kinematic Self-Similar Solutions and their Applications* by **Ms Sehar Aziz** (January 11, 2008).
- 2. *Wave Properties in Black Hole Magnetospheres* by **Miss Umber Sheikh** (September 01, 2008).
- 3. Some Important Issues of General Relativity in Teleparallel Theory of Gravity by Mr. Muhammad Jamil Amir (October 17, 2008).
- 4. *Gravitational Collapse: A Key Issue in General Relativity* by **Mr. Zahid Ahmad** (February 23, 2009).
- 5. Some Aspects of Dark Energy and Gravitational Collapse in f(R) Theory by Miss H. Rizwana Kausar (May 12, 2012).
- 6. *Fate of Gravitational Collapse in Electromagnetic Theory* by **Mr. Ghulam Abbas** (January 11, 2013).
- 7. Some Cosmological Issues in Scalar-Tensor Theories by Miss Saira Waheed (January 04, 2014).
- 8. Evolution of the Universe and Dark Energy Mystery by Mr. Abdul Jawad (January 17, 2014).
- 9. *Hawking Radiation from Some Particular Black Holes* by **Ms Wajiha Javed** (January 17, 2014).
- 10. *Stability Analysis: A Crucial Study in General Relativity* by **Mr. Muhammad Azam** (February 28, 2014).
- 11. *Curvature Matter Coupling: Some Cosmic Aspects* by **Mr. Muhammad Zubair** (April 19, 2014).
- 12. Some Interesting Issues in f(T) Gravity by Miss Shamaila Rani (December 11, 2014).
- 13. Stability Analysis of Self-gravitating Collapsing Systems by Mr. M. Zaeem ul Haq Bhatti (October 26, 2015).
- 14. Some Inflationary and Cosmic Issues in General Relativity by Miss Rabia Saleem (October 26, 2015).
- 15. Dynamical Evolution of Collapsing Stellar Systems in f(R) Gravity by Mr. Zeeshan Yousaf (November 02, 2015).
- 16. *Gravitational Lensing and Dynamics of Black Holes* by **Miss Sehrish Iftikhar** (December 15, 2016).
- 17. Dynamics of Self-Gravitating Systems in Scalar-Tensor Gravity by Miss Rubab Manzoor (July 28, 2017).
- 18. Some Aspects of Modified Gauss-Bonnet Gravity by **H. Ismat Fatima** (January 13, 2018).
- 19. Study of Cosmic Issues in Modified Gauss-Bonnet Theories by Ayesha Ikram (February 12, 2018).
- 20. *Stability Analysis of Celestial Objects and Cosmos* by **Saadia Mumtaz** (February 12, 2018).
- 21. Cosmic Inflation and Evolution in f(R) and f(R,T) Theories by Iqra Nawazish (February 12, 2018).

- 22. Evolution of the Universe in $F(T,T_G)$ Gravity by Kanwal Nazir (April 13, 2018).
- 23. Study of Physical Characteristics of Stellar Configurations by Sobia Sadiq (February 15, 2019).
- 24. *Effects of Modified Theories on Stellar Structure and Cosmic Evolution* by **Aisha Siddiqa** (February 15, 2019).
- 25. Study of Stellar Structures and Stability Analysis in Modified Gravity by Arfa Waseem (November 29, 2019).
- 26. Cosmic Evolution and Gravitational Decoupled Solutions in Modified Gauss-Bonnet Gravity by Saadia Saba (January 24, 2020).
- 27. *Physical Viability and Stability of Self-gravitating Systems* by **Qanitah Ama-Tul-Mughani** (October 29, 2020).
- 28. *Mechanical Stability and Dynamical Evolution of Thin-Shell* by **Faisal Javed** (June 03, 2021).
- 29. Some Aspects of Self-interacting Brans-Dicke Theory by Amal Majid (January 21, 2022).

PhD in Progress:

- 1. Mr. Muhammad Zeeshan Gul (2019-2022)
- 2. Mr. Tayyab Naseer (2020-2023)
- 3. Miss Komal Hassan (2020-2023)
- 4. Miss Saba Naz (2020-2023)

SUPERVISED MPHIL THESIS TITLES:

- 1. Non-Static Spherically Symmetric Perfect Fluid Solutions by Tanveer Iqbal (1999).
- 2. *Matter Collineations of Spherically Symmetric Static Spacetimes* by **Sehar Aziz** (2002).
- 3. Spacelike and Timelike Matter Inheritance Vectors in Different forms of Matter Tensor by **Umber Sheikh** (2004).
- 4. Energy-Momentum Distribution: A Crucial Problem in General Relativity by **Tasnim Fatima** (2004).
- 5. *Matter Collineations of Plane Symmetric Spacetimes* by **Tariq Ismaeel** (2006).
- 6. Conformal Collineations for Fluid Spacetimes by Naghmana Tehseen (2006).
- 7. Energy-Momentum Distribution of Some Specific Spacetimes by Muhammad Azam (2006).
- 8. Linear Perturbations of Self-Similar Spherically Symmetric Solutions of Second Kind by Aziz Ullah (2006).
- 9. Symmetries of Energy-Momentum Tensor: Plane Symmetric Spacetimes by Nousheen Ilyas (2007).
- 10. Energy-Momentum Distribution in General Relativity and Teleparallel Theory of Gravitation by Kanwal Nazir (2007).
- 11. Parallel and Orthogonal Self-Similar Solutions of Cylindrically Symmetric Spacetimes by Javaria Zanub (2007).
- 12. Tilted Self-Similar Solutions of Cylindrically Symmetric Spacetimes by Sajid Sultan (2007).
- 13. Behavior of Time Varying Constants in Relativity by H. Rizwana Kausar (2008).

- 14. Plasma Wave Properties of Non-Rotating Spacetimes by Ghulam Mustafa (2008).
- 15. *Killing Vectors in Teleparallel Theory of Gravitation* by **Bushra Majeed** (2008).
- 16. *Spherically Symmetric Gravitational Collapse* by **Khadija Iqbal** (2008).
- 17. *Wave Properties of the Schwarzschild Magnetosphere with Hot Plasma* by Asma Rafique (2009).
- 18. Spherically Symmetric Gravitational Collapse with Electromagnetic Field by Ghulam Abbas (2009).
- 19. Some Issues in f(R) Theory of Gravity by **M. Farasat Shamir** (2009).
- 20. *Hamiltonian Approach: Energy and its Contents in Teleparallel Gravity* by **Sumaira Taj** (2009).
- 21. *Plane Symmetric Kinematic Self-similar Heat Conducting and Charge Solutions* by **Wajiha Javed** (2009).
- 22. Dynamics of Viscous Dissipative Plane Symmetric Gravitational Collapse by Zakia Rehmat (2009).
- 23. *Wave Properties of the Non-Rotating Black Hole in a Veselago Medium* by **Noureen Mukhtar** (2010).
- 24. Effects of Electromagnetic Field and Anisotropic Dark Energy on Cosmological Models by **Muhammad Zubair** (2010).
- 25. Conserved Quantities with Approximate Symmetries of Some Well-Known Spacetimes by Saira Waheed (2010).
- 26. Dynamics of the Charged Plane Symmetric Gravitational Collapse by Aisha Siddiqa (2010).
- 27. Conserved Energy-Momentum Issue using Hamiltonian Approach in Teleparallel Gravity by Abdul Jawad (2010).
- 28. Dynamics of the Charged Cylindrically Symmetric Gravitational Collapse by Sundas Fatima (2010).
- 29. Charged Anisotropic Static Cylindrically Symmetric Models by H. Ismat Fatima (2011).
- 30. Thermodynamics and Some Cosmological Parameters with Varying G and \land by Farida Khanum (2011).
- 31. *Expanding Universe in Generalized Teleparallel Gravity* by **Shamaila Rani** 2011).
- 32. *Plasma Wave Properties of Schwarzschild de Sitter Black Hole in a Veselago Medium* by **Ifra Noureen** (2011).
- 33. Energy Density Inhomogeneity and Electromagnetic Field with Spherical Symmetry by **Neelum Bashir** (2012).
- 34. *Dark Energy f(T) Gravity Models with Anisotropic Universe Models* by **Sehrish** Azeem (2012).
- 35. *Electromagnetic Wave Propagation with Negative Phase Velocity in Some Black Holes* by **Rubab Manzoor** (2012).
- 36. Thermodynamics and Some Cosmological Parameters for Dark Energy Models by Rabia Saleem (2012).
- 37. Structure Scalars in Charged Cylindrical and Plane Symmetries by M. Zaeem ul Haq Bhatti (2012).

- 38. Shear and Expansion Free Evolution Models in General Relativity by Zeeshan Yousaf (2012).
- 39. Some Exact Solutions in f(R) Gravity and Energy-Momentum Distribution by Sadia Arif (2012).
- 40. *Gravitational Collapse and Dynamics of Charged Tilted LTB Spacetimes* by **Amal Majid** (2013).
- 41. Center of Mass Energy for Some Well-known Black Holes by Nida Haider (2013).
- 42. Some Exact Static Plane Symmetric Interior Solutions and Traversable Wormholes in f(R) Gravity by Zuriat Zahra (2013).
- 43. *Gravitational Collapse and Wormhole Solutions in f(G) Gravity* by **Ayesha Ikram** (2014).
- 44. Some Anisotropic Cosmic Models in Scalar-Tensor Theories by Imrana Shafique (2014).
- 45. Stability and Thermodynamics of Anisotropic Model in f(T) Gravity by Saima Jabbar (2014).
- 46. Dynamics of Some Spacetimes in Tilted and Non-tilted Frames by Hira Tahir (2014).
- 47. Dynamics of Tilted LTB Spacetime and Noether Symmetry in f(R) Gravity by Iqra Nawazish (2014).
- 48. Thin-shell Wormhole Solutions and their Stability Static by Saadia Mumtaz (2014).
- 49. Gravitational Structure Scalars of Dissipative Axial System in f(R) Gravity by **Zunaira Nasir** (2015).
- 50 *Conformally Flat Anisotropic Polytropes* by **Sobia Sadiq** (2015).
- 51. Study of Inflation with Generalized Dissipation and Inhomogeneous Viscous Fluid by Sidra Mohsaneen (2015).
- 52. Thermodynamics of Chaplygin Gas and Emergent Universe Models by Ayesha Sarwar (2016).
- 53. Some Features of Compact Stars in $f(R, T, R_{\mu\nu}T^{\mu\nu})$ Gravity by Arfa Waseem (2016).
- 54. Stability Analysis of Bardeen Thin-Shell Wormholes with Variable Equation of State by Faisal Javed (2016).
- 55. Anisotropic Exact Solutions in Scalar-Tensor-Vector Gravity Theory by Aasma Yousaf (2016).
- 56. *Stability of Circular Orbits around Tidal Charged Black Hole* by **Lubna Kousar** (2017).
- 57. Particle Dynamics around Non-Rotating and Rotating Black Holes in Modified Gravity by **Misbah Shahzadi** (2017).
- 58. On Thermal Stability of Some Dark Energy Models by Sara Ashraf (2017).
- 59. Dynamics of Cylindrically Symmetric Collapse in f(R) Gravity by Naila Farooq (2017).
- 60. *Higher-Dimensional LTB Collapse in Modified Theories* by Atiq Anwar (2018).
- 61. Cosmic Evolution of Dark Energy Models in Brans-Dicke Theory by Syed Asif Ali Shah (2018).
- 62. Study of Charged Gravitational Collapse in Modified Gauss-Bonnet Gravity by Saba Naz (2018).

- 63. Study of Gravitational Collapse in Curvature-Matter Coupled Gravity by Muhammad Zeeshan Gul (2018).
- 64. Study of Complexity Factor for Self-gravitating Systems by Iqra Ijaz Butt (2018).
- 65. Complexity Factor for Charged Dynamical Self-gravitating System by Saher Tariq (2019).
- 66. *Thermodynamics of a Class of Rotating Regular Black Holes* by **H. Saba Nawaz** (2019).
- 67. Complexity Factor for Self-Gravitating System in f(G) Gravity by Mian M. Muddassar Nasir (2019).
- 68. Wormhole Solutions and Noether Symmetry in Modified Gauss-Bonnet Gravity by Shahid Hussain (2019).
- 69. Study of Tilted Anisotropic Dissipative Titled Quark Star by Sumaira Nazir (2019).
- 70. Stability of the Einstein Universe against Anisotropic Perturbations in f(R)Gravity by Sana Saleem (2020).
- 71. Study of Compact Stars in Curvature-Matter Coupling Gravity by Aroob Naeem (2020).
- 72. Stability Analysis of Bardeen and Hayward Thin-Shells around Wormholes by Komal Ashraf (2020).
- 73. Study of Compact Stars in Modified Gauss-Bonnet Gravity by Amna Ramzan (2020).
- 74. Thermodynamics of Rotating Charged Black Hole with Weyl Corrections by **Zunaira Akhtar** (2020).
- 75. *Gravitationally Decoupled Non-Static Anisotropic Spherical Solutions* by **Shehrbano Ahmed** (2021).
- 76. Decoupled Stellar Models in $f(\mathsf{A},T)$ Gravity by Fizza Furqan (2021).
- 77. Thermodynamics of Bardeen Black Hole Surrounded by Perfect Fluid Dark Matter by Amjad Khan (2021).
- 78. *Greybody Factor of Rotating Bardeen Black Hole Surrounded by Perfect Fluid Dark Matter by* **Sulaman Shaukat** (2021).
- 79. Compact Objects by Gravitational Decoupling in f(R) Gravity by Mariyah Aslam (2021).
- 80. Effects of Curvature-Matter Coupled Gravity on Anisotropic Polytropes by Muhammad Shafaqat (2021).
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MPhil in Progress:

- 1. Mr. Ali Raza (2020-2022)
- 2. Miss Ayesha Anjum (2020-2022)
- 3. Miss Shazmeena Eltaf (2020-2022)
- 4. H. Muhammad Salman Akram (2020-2022)

EDITORSHIP:

1. Chief Editor, *Punjab University Journal of Mathematics* from 2013 to 2019.

- 2. Editor, *Punjab University Journal of Mathematics* from 1996 to 2012.
- 3. Editor (Physical Sciences), *Proceedings of the Pakistan Academy of Sciences* from 2015 to to-date.
- 4. Editor, *Proceedings of the Mini Workshop on Relativity, Astrophysics and Cosmology* (The Wall Street Printers, 1992).
- 5. Editor, *Proceedings of the International Conference on Relativistic Astrophysics* (Department of Press and Publications, University of the Punjab, 2015).

REFERENCES:

- Prof. Dr. Francesco De Paolis, Department of Mathematics and Physics "Ennio De Giorgi" University of Salento, CP 193, I-73100 Lecce, Italy, Email: <u>Francesco.DePaolis@le.infn.it</u>
- 2. Prof. Dr. Phillippe Jetzer, Institute of Theoretical Physics, University of Zurich, Winterthurerstr, 190 8057, Zurich, Switzerland, Email: jetzer@physik.uzh.ch
- 3. Prof. Dr. Sijie Gao, Department of Physics, Beijing Normal University, Beijing 100875, P.R. China, Email: <u>sijie@bnu.edu.cn</u>