

RESEARCH/PUBLICATIONS:

THESIS

1. **Critique of the Kaluza-Klein Theory**
M.Phil Dissertation Quaid-i-Azam University Islamabad, Pakistan 1986;
2. **Quantisation on Spacelike Hypersurfaces in Curved Spacetimes**
Ph.D. Thesis, Quaid-i-Azam University Islamabad, Pakistan, 1993;

PUBLISHED/ACCEPTED/ PROCEEDINGS/PREPRINTS

3. **Some Comments on the Original Kaluza-Klein Theory**
Co-author Asghar Qadir, App. Math. Mech. 8(1987)825;
4. **On the Five Dimensional Theory of Kaluza and Klein**
Co-author Asghar Qadir, accepted for publication in Nuovo Cimento but withdrawn;
5. **Hawking Radiation in Freely Falling Frame**
Co-author Asghar Qadir, Preprint QAUM-89/47
6. **Quantisation on a Sequence of Space-like Hypersurfaces in Schwarzschild Geometry**
Co-author Asghar Qadir, Proc. Fourth Regional Conference on Mathematical Physics, eds. F. Ardalan, H. Arfaei and S. Rouhani; Sharif University Tehran, Iran, 1990;
7. **Non-Static Axisymmetric Universe Model And Its Evolution**
Co-authors A.H. Bokhari and Muhammad A. Mughal, Intr.J.Theo. Phys. Vol. 29, 9(1990)1011
8. **Quantisation of Scalar Fields on Ψ N-Hypersurfaces**
Proc. Mini Workshop on Relativity, Cosmology and Astrophysics, eds. Asghar Qadir and Mohammad Sharif, Quaid-i-Azam University Islamabad, Pakistan, 1991;
9. **Quantisation of Scalar Fields on the Spacelike Hypersurfaces of Constant Mean Extrinsic Curvature**
Co-author Asghar Qadir, Proc. Fifth Regional Conference on Mathematical Physics, eds. M. Koca and Askari Baran, Edirne, Turkey, 1991;
10. **A Complete Foliation of Schwarzschild and Reissner-Nordstrom Spacetime by Freely Falling Observers Hypersurfaces**
Co-author Asghar Qadir, (presented in the poster session in the Fourth Symposium on Frontiers in Physics April 15-19, 1992, eds. Asghar Qadir and G. Murtaza);
11. **Ambiguities in Labeling the Penrose Diagram for the Schwarzschild Metric and its Foliation by Free-Fall Hypersurfaces**
Co-author Asghar Qadir, preprint QAUM-93/72;
12. **York Slicing the Schwarzschild Spacetime**
Co-author Asghar Qadir, preprint QAUM-93/76;
13. **Foliation by Constant Mean Curvature Hypersurfaces of the Schwarzschild Spacetime**
Co-authors, A.A. Siddiqui and Asghar Qadir, Phys. Rev. D, vol.51, 8(1995) 4598.

14. **Weyl, Curvature, Ricci and Metric Tensor Symmetries**
Co-authors, A.H. Bokhari and Shahan Ahmed, Intr. Jr. Theo. Phys., vol. 35, 5(1996)1013
15. **Foliation of Spacetime**
Co-author M. Ayub Faridi & Fazal-e Aleem, Proc. the 9th National Symposium on Frontiers in Physics, Government College University, Lahore, January 28-30, 2003, p98-109.
16. **Determination of metric Tensor for the given Scalar ψ Potential**
Co-author M. Ayub Faridi & Fazal-e Aleem, Proc. the 10th National Symposium on Frontiers in Physics, Government College University, Lahore, January 11-14, 2005.
17. **A Complete Foliation of Schwarzschild Spacetime by the Free Falling Hypersurfaces**
Co-authors M. Ayub Faridi, Haris Rashid & Fazal-e Aleem, Chin. Phys. Lett., vol.3,12(2006)3161.
18. **The Role of Free Falling Hypersurfaces**
Co-authors M. Ayub Faridi, Haris Rashid & Fazal-e Aleem, American Institute of Physics, Vol.888,. MTPH 06(2007)274, Ed. L.El Nadi.
19. **Tribological & Wear Behavior of Ytria Stabilized Zirconia Thermal Barrier Coatings on Mild Steel**
Co-authors M. Farooq, S. Alam, B. Wasim, A. Imran, M. Irfan, S. Naseem, Journal of the Pakistan Institute of Chemical Engineers, accepted for publication.
20. **Study of tribological and Wear Characteristics of Thermal Barrier Coatings on Stainless Steel Substrate**
Co-authors M. Farooq, S. Alam, A. Imran, B. Wasim, M. Irfan, S. Naseem, S.F. Shaukat, Archives Des Sciences Journal, Vol. 65, Issue 9, 2012.

BOOKS

1. **An Introduction to Numerical Analysis** (Graduate Level)
A.H. Publishers, Al-Fazal Market, Urdu Bazar, Lahore, 1996, 1998
2. **An Introduction to Vector Analysis** (Graduate Level)
Co-authors Ahamd Khan Qureshi, Aftab Khan and Khalid Hanif
A.H. Publishers, Al-Fazal Market, Urdu Bazar, Lahore, 1996
3. **An Introduction to Theoretical Mechanics** (Graduate Level)
Co-authors Ahamd Khan Qureshi and Aftab Khan
A.H. Publishers, Al-Fazal Market, Urdu Bazar, Lahore 1995
4. **Comprehensive Book of Mechanics** (by Q. K. Ghorl)
Co-authors Ahamad Khan Qureshi and Aftab Khan
A.H. Publishers, Al-Fazal Market, Urdu Bazar, Lahore. 1995
5. **Calculus and Analytical Geometry** (Graduate Level)
Asim Brothers, New Urdu Bazaar, Collage Road, Rawalpindi, 1997.
6. **Objective Computer Science-I** (under Graduate Level)
Co-author Muhammad Zahid Rafiq Bhatti
National Book Foundation, Islamabad, 2005.
7. **Objective Computer Science-II** (under Graduate Level)

- Co-author Muhammad Zahid Rafiq Bhatti
National Book Foundation, Islamabad, (to be published).
8. **Objective Statistics-I** (under Graduate Level)
Co-author Muhammad Zahid Rafiq Bhatti
National Book Foundation, Islamabad, 2005-2006.
 9. **Objective Statistics-II** (under Graduate Level)
Co-author Muhammad Zahid Rafiq Bhatti
National Book Foundation, Islamabad, 2005-2006.
 10. **Ordinary Differential Equations** (Post Graduate Level) Under Process.
 11. **Partial Differential Equations** (Post Graduate Level) Under Process.
 12. **Mathematical Statistics** (Post Graduate Level) Under Process.
 13. **Advanced Analysis** (Post Graduate Level) Under Process.