

Research Publications

List of Journal Publications (Indexed by ISI-JCR):

- 1) M. Yousaf, **H. Asad(C.A)**, A. Rehman, Dynamical Evolution of Self-gravitating Compact Fluid with Hyperbolic Corrections, Physics of the Dark Universe, **48**, 101888(2025), (Elsevier).
- 2) M. Yousaf, **H. Asad(C.A)**, Impact of Modified Chaplygin Gas on Electrically Charged Thin-Shell Wormhole Models, Physics of the Dark Universe, **48**, 101841(2025), (Elsevier).
- 3) Z. Yousaf, **H. Asad**, Mansoor Alshehri, T. Suzuki,, and M. Z. Bhatti. Electromagnetic field and spatially hyperbolical spacetime models. International Journal of Geometric Methods in Modern Physics, 2550145 (2025).
- 4) Z. Yousaf, M. Z. Bhatti, **H. Asad**, Y. Hashimoto, K. Bamba. Orthogonal splitting in degenerate higher-order scalar-tensor theories. International Journal of Geometric Methods in Modern Physics, Accepted (2025).
- 5) M. Yousaf, **H. Asad(C.A)**, B. Almutairi, S. Hasan, A. S. Khan. Fuzzy black hole models in f(G) Gravity. Physica Scripta, **99**, 115270(2024).
- 6) **H. Asad**, M. Yousaf, Bander Almutairi, Laiba Zahid, A. S. Khan. Evolution of Non-Static Fluid for Irreversible Gravitational Radiation in Palatini $F(R)$ Gravity. Physics of the Dark Universe, **46**, 101666(2024).
- 7) Z. Yousaf, M.Z. Bhatti, **H. Asad**, Analytical models of hyperbolical gravitational sources. International Journal of Modern Physics D, **32**, 2350089(2023).
- 8) Z. Yousaf, **H. Asad**, B. Almutairi, A. Malik, Electromagnetic Effects on Anisotropic Expansion-Free Fluid Content. Communications in Theoretical Physics, **75**, 105202(2023).
- 9) **H. Asad**, Z. Yousaf, Study of anisotropic fluid distributed hyperbolically in $f(R, T, Q)$ gravity. Universe, **8**, 630(2022).
- 10) Z. Yousaf, M.Z. Bhatti, **H. Asad**, Electromagnetic effects on cylindrical gravastar-like strings in a $f(R, T, R\sigma\eta T^{\sigma\eta})$ gravity. International Journal of Geometric Methods in Modern Physics, **19**, 2250070(2022).
- 11) Z. Yousaf, M.Z. Bhatti, **H. Asad**, Matter-curvature gravity modification and the formation of

- cylindrical isotropic systems. *Pramana*, 96, 1(2022).
- 12) Z. Yousaf, M.Z. Bhatti, **H. Asad**, Consequences of electric charge on anisotropic hyperbolically symmetric static spacetime. *Physica Scripta*, 97, 055304(2022).
 - 13) Z. Yousaf, G. G. L. Nashed, M.Z. Bhatti, **H. Asad**, Significance of Charge on the Dynamics of Hyperbolically Distributed Fluids. *Universe*, 8, 337(2022).
 - 14) Z. Yousaf, M.Z. Bhatti, **H. Asad**, Hyperbolically symmetric sources in $f(R, T)$ gravity. *Annals of Physics*, 437, 168753(2022).
 - 15) Z. Yousaf, M.Z. Bhatti, M. Khlopov, **H. Asad**, A comprehensive analysis of hyperbolical fluids in modified gravity. *Entropy*, 24, 150(2022).
 - 16) Z. Yousaf, M. Khlopov, M.Z. Bhatti, **H. Asad**, Hyperbolically symmetric static charged cosmological fluid models. *Monthly Notices of the Royal Astronomical Society*, 510, 4100(2022).
 - 17) Z. Yousaf, M.Z. Bhatti, **H. Asad**, Gravastars in $f(R, T, R\mu\nu T^{\mu\nu})$ gravity *Physics of the Dark Universe*, 28, 100527(2020).