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Summary of Experience

- Lecturer of Mathematics, Department of Mathematics, University of Peshawar since 26th October 2009 to August 2014.
- Assistant Professor of Mathematics, Department of Mathematics, University of Peshawar since 1st September 2014 to date.
- 4 Years, Experience as Staff Proctor, University of Peshawar.
- 2 Years, Experience as BS- Program Coordinator, Department of Mathematics, University of Peshawar.
- Taught as a visiting faculty at different departments of the University of Peshawar, such as, Department Physics, Electronics, Zoology, Geography, Urban and Regional Planning and Urdu.

Research Publications

1. **Muhammad Asif**, Muhammad Umar Farooq, Muhammad Bilal Riaz, Faisal Bilal,Nadeem Hiader, Numerical assessment of hyperbolic type double interface problems via Haar wavelets, Partial Differential Equations in Applied Mathematics (Elsevier), 10 (2024) 100665, https://doi.org/10.1016/j.padiff.2024.100665
2. **Muhammad Asif**, Faisal Bilal, Mehnaz, Imran Khan, Qasem-Al-Mdallal, Extension of Haar wavelet technique for numerical solution of three-dimensional linear and nonlinear telegraph equations, **Partial Differential Equations in Applied Mathematics (Elsevier), 9(2024), 100618, https://doi.org/10.1016/j.padiff.2024.100618.**
3. **Muhammad Asif,** Faisal Bilal, Mehnaz, Rubi Bilal, Nadeem Haider, Shaimaa A. M. Abdelmohsenc, Sayed M Eldind. An efficient algorithm for the numerical solution of telegraph interface model with discontinuous coefficients via Haar wavelets, **Alexandria Engineering Journal, 72(2023), 275-285. https://doi.org/10.1016/j.aej.2023.03.074. (I.F 6.626)**
4. **Muhammad Asif,** Rohul Amin, Nadeem Haider, Imran Khan, Qasem-Al-Mdallal, Aziz Khan, A hybrid numerical technique for three-dimensional parabolic partial differential equations, **Fractals, 31(2023), 2340018 (16 pages), DOI: 10.1142/S0218348X23400182. (I.F 4.555)**

5. Gul e Rana, **Muhammad Asif,** Rubi Bilal, Nadeem Haider, Qasem-Al-Mdallal. Haar wavelet collocation technique for advection-diffusion-reaction type interface models, **Journal of Function Spaces, Vol. 2022, Article ID 1541486, 15 pages,** https://doi.org/10.1155/2022/1541486. **(I.F 1.281).**
6. Imran Khan, Muhammad **Asif**, Rohul Amin, Qasem Al Mdallal , Fahd Jarad, On a new method for finding numerical solutions to integro-differential equations based on Legendre multi-wavelets collocation, **Alexandria Engineering Journal, (2021), (I.F 6.626).**
7. **Muhammad Asif**, Saeed Ullah Jan, Nadeem Haider, Qasem-Al-Mdallal, Thebet Abdeljawad, Numerical modeling of NPZ and SIR models with and without diffusion. **Result in Physics, Vol. (19), (2020) 103512, https://doi.org/10.1016/j.rinp.2020.103512. (I.F 4.565)**

8. **Muhammad Asif**, Zar Ali Khan, Nadeem Haider, Qasem-Al-Mdallal, Numerical simulation for solution of SEIR models by meshless and finite difference methods, **Chaos, Soliton and Fractals, 141 (2020) 110340, (I.F 9.922).**

9. **Muhammad Asif**, Imran Khan, Nadeem Haider, Qasem-Al-Mdallal, Legendre multi-wavelets collocation method for numerical solution of linear and nonlinear integral equations, **Alexandria Engineering Journal, (2020), (I.F 6.626).**

10. Imran Aziz, Siraj-ul-Islam, **Muhammad Asif**, Haar wavelet collocation method for three-dimensional elliptic partial differential equations, **Elsevier Journal Computer and Mathematics with Application, 73(2017) 2023-2034. http://dx.doi.org/10.1016/j.camwa.2017.02.034. (I.F 3.218).**

11. Rohul Amin, Kamal Shah, **Muhammad Asif**, Imran Khan, Efficient numerical technique for solution of delay Volterra-Fredholm integral equations using Haar wavelet, **Heliyon 6 (2020) e05108, https://doi.org/10.1016/j.heliyon.2020.e05108. (I.F 3.776).**

12. Rohul Amin, Kamal Shah, **Muhammad Asif**, Imran Khan, Faheem Ullah. An efficient algorithm for numerical solution of fractional integro-differential equations via Haar wavelet, **Journal of Computational and Applied Mathematics, Vol. (381), pp. 1-17, 2021. (I.F 2.872).**

13. **Muhammad Asif,** Nadeem Haider, Qasem-Al-Mdallal, Imran Khan, A Haar wavelet collocation approach for solving one and two-dimensional second-order linear and nonlinear hyperbolic telegraph equations, Numerical Methods for Partial Differential Equations, **Vol. (36), (2020), pp. 1-20, DOI: 10.1002/num.22512. (I.F 3.568)**

14. Rohul Amin, Şuayip Yüzbaş Liping Gao, **Muhammad Asif**, Imran Khan, Algorithm for the Numerical Solutions of Volterra Population Growth Model with Fractional Order via Haar Wavelet, Contemporary Mathematics, Volume 1, Issue 2 (2020), 54-111. **(I.F 3.568)**

15. Rohul Amin, Kamal Shah, Imran khan, **Muhammad Asif**, Efficient numerical scheme for the solution of twelfth-order boundary value problems by Haar wavelet method, **Open Physics, (2020), (I.F 1.361).**
16. Rahul Amin, Kamal Shah, Imran khan, **Muhammad Asif,** Mehdi Salimi, Ali Ahmadian, Efficient numerical scheme for the solution of tenth order boundary value problems by Haar

wavelet method, **MDPI Mathematics, Vol. 8, (2020) pp-1-19,** https://www.mdpi.com/2227-7390/8/11/1874/pdf. **(I.F 2.592).**

17. Rohul Amin, Kamal Shah, **Muhammad Asif**, Imran Khan, Qasem-Al-Mdallal, Efficient Numerical Algorithm for the Solution of Eight Order Boundary Value Problems by Haar Wavelet Method, **International Journal of Applied and Computational Mathematics, 7(34), (2021),** https://doi.org/10.1007/s40819-021-00975-x**.**
18. A. Zada, G. A. Khan, **M. Asif** and R. Amin, On dichotomy of autonomous Systems and boundedness of some Cauchy Problems, **International Journal of Research and Reviews in Applied Sciences, 14(3), (2013), 533-538.**
19. A. Zada, R. Amin, G. A. Khan, and **M. Asif**, A characterization of dichotomy for autonomous discrete systems, **Journal of Advanced Research in Dynamical and Control Systems, Vol. 6, Issue 1, 2014, 48-55. (Category-Y).**
20. Zada, R. Amin, T. Hussain and **M. Asif**, Discrete characterization of stability and dichotomy of evolution family over finite dimensional spaces, **World Applied Sciences Journal, 27 (12): 1630-1636, 2013 (I.F 0.218).**

MPhil Scholar Supervision

1. Rabia Bibi (completed)
2. Samiah Anam(completed)
3. Muhammad Adil(completed)
4. Faisal Bilal (completed)
5. Umer Farooq (completed)
6. Naveed Akhter (completed)
7. Shabnam (completed)
8. Fatima (completed)
9. Tabassum (completed)
10. Farhan (completed)
11. Maria Yousaf (completed)
12. Atif Khan (in progress)
13. Muhammad Haider (in progress)
14. Jawairia Bibi (in progress)
15. Ruqqaya Bibi (in progress)

PhD Scholar Supervision

1. Gul e Rana (completed)
2. Muhammad Faheem (in progress)
3. Khwaja Shamsul Haq (in progress)
4. Faisal Bilal (in progress)
5. Naveed Khan (in progress)

References:

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