

## Research Publications

1. M. Vivas-Cortez, M. Sadaf, S. Arshed, K. Rehan, G. Akram and K. Saeed, Extraction of optical solitons for conformable perturbed Gerdjikov–Ivanov equation via two integrating techniques, *Advances in Mathematical Physics* (2024), 2024: 5936389.
2. G. Akram, M. Sadaf, S. Arshed and M. S. Riaz, Exact solutions of paraxial equation via extended hyperbolic function method, *Optical and Quantum Electronics* (2024), 56: 1621.
3. M. A. U. Khan, M. Sadaf, G. Akram, A. Birhanu, K. Rehan and Y. S. Hamed, Soliton solutions of nonlinear coupled Davey-Stewartson Fokas system using modified auxiliary equation method and extended  $(G'/G^2)$ -expansion method , *Scientific Reports* (2024), 14: 21949.
4. G. Akram, M. Sadaf, S. Arshed, M. Z. Raza, and A. S. M. Alzaidi, Formation of solitons for the modified nonlinear Schrödinger equation, *Modern Physics Letters B* (2024), 38: 2450189.
5. S. Arshed, G. Akram, M. Sadaf, P. Bakhtawer, and Y. S. Hamed, Optical solitons for the nonlinear perturbed Gerdjikov-Ivanov equation with constant and variable coefficients, *Optical and Quantum Electronics* (2024), 56: 1389.
6. M. Vivas-Cortez, M. Sadaf, Z. Perveen, G. Akram and S. Fatima, A study of time-fractional model for atmospheric internal waves with Caputo-Fabrizio derivative, *PLoS ONE* (2024), 19(7): e0302743.
7. G. Akram, M. Sadaf, I. Zainab and E. E. Mahmoud, Resonant multiple soliton and rogue type multiple lump wave solutions of the modified KdV-KP equation, *Optical and Quantum Electronics* (2024), 56:1215.
8. S. Arshed, G. Akram, M. Sadaf, E. Hussain, M. Abbas, A. S. M. Alzaidi and M. B. Riaz, Investigation of the dynamical structures for nonlinear Vakhnenko-Parkes equation using two integration schemes, *Optical and Quantum Electronics* (2024), 56:1072.
9. G. Akram, M. Sadaf, S. Arshed and M. A. B. Iqbal, Simulations of exact explicit solutions of simplified modified form of Camassa-Holm equation, *Optical and Quantum Electronics* (2024), 56:1037.
10. G. Akram, S. Arshed, M. Sadaf and H. Shadab, New traveling wave solutions for generalized Sasa-Satsuma equation via two integrating techniques, *Optical and Quantum Electronics* (2024), 56:1016.

11. S. Arshed, G. Akram, M. Sadaf, M. Irfan and M. Inc, Extraction of exact soliton solutions of (2+1)-dimensional Chaffee-Infante equation using two exact integration techniques, *Optical and Quantum Electronics* (2024), 56:988.
12. M. Sadaf, Z. Perveen, G. Akram, U. Habiba, M. Abbas and H. Emadifar, Solution of time-fractional gas dynamics equation using Elzaki decomposition method with Caputo-Fabrizio fractional derivative, *PLoS ONE* (2024), 19(7): e0300436.
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14. G. Akram, M. Sadaf, S. Arshed and M. Farrukh, Optical soliton solutions of Manakov model arising in the description of wave propagation through optical fibers, *Optical and Quantum Electronics* (2024), 56:906.
15. G. Akram, M. Sadaf and M. A. U. Khan, Analytical study of Boiti-Leon-Manna-Pempinelli equation using two exact methods, *Optical and Quantum Electronics* (2024), 56:909.
16. G. Akram, S. Arshed, M. Sadaf and A. Khan, Extraction of new soliton solutions of (3+1)-dimensional nonlinear extended quantum Zakharov-Kuznetsov equation via generalized exponential rational function method and  $(G'/G, 1/G)$  expansion method, *Optical and Quantum Electronics* (2024), 56:829.
17. S. Arshed, G. Akram, M. Sadaf and H. Shadab, New traveling wave solutions for paraxial wave equation via two integrating techniques, *Optical and Quantum Electronics* (2024), 56:791.
18. S. Arshed, G. Akram, M. Sadaf, R. Latif and H. Ahmad, Investigation of (2+1)-dimensional extended Calogero-Bogoyavlenskii-Schiff equation by generalized Kudryashov method and two variable  $(G'/G, 1/G)$  -expansion method, *Optical and Quantum Electronics* (2024), 56:747.
19. M. Sadaf, S. Arshed, G. Akram, M. A. B. Iqbal and M. E. Samei, Solitary wave solutions of Camassa-Holm nonlinear Schrödinger and (3+1)-dimensional Boussinesq equations, *Optical and Quantum Electronics* (2024), 56:720.
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27. G. Akram, M. Sadaf, S. Arshed and Iqra, A variety of novel traveling wave solutions to Fokas-Lenells model by two novel integration schemes, *Optical and Quantum Electronics* (2024), 56:390.
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29. G. Akram, M. Sadaf, Z. Perveen, M. Sarfraz, A. S. A. Alsubaie and M. Inc, Exact travelling wave solutions for generalized (3+1) dimensional KP and modified KP equations, *Optical and Quantum Electronics*, 56:325.
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