

Departmental List of Publications for the Calendar Year 2024

A.Blokh, V.Timorin, L.Oversteegen "Upper bounds for the moduli of polynomial-like maps", Nonlinearity, vol. 37 (2024), Paper No. 035003

A.Blokh, M. Misiurewicz "Evolution of the Sharkovsky Theorem", Ukrainian Math. Journal, vol. 76 (2024), 48-61

Z. Grujic, L. Xu "Asymptotic criticality of the Navier-Stokes regularity problem", J. Math. Fluid Mech. 26:53 (2024)
<https://doi.org/10.1007/s00021-024-00888-x>

A. Duaibes, Yu. Karpeshina "Resonant Solutions of the Non-linear Schrödinger Equation with Periodic Potential", Nonlinearity 37 (2024) 095012 (28pp)

Junfang Li, S. Walter Wei, L. Wu "p-Parabolicity and a generalized Bochner's method with applications", La Matematica, Volume 3, pages 1162–1197, (2024).

Zheng, D., Li, K., Yang, J. , "Response-Aided Score-Matching Approaches for Big Data Analysis and Model Selection under Generalized Linear Models", Algorithms, 2024, 17(10), 456; DOI:10.3390/a17100456

M. Fan, B. Geng, Li, K., X. Wang, and P. K. Varshney, "Interpretable Data Fusion for Distributed Learning: A Representative Approach via Gradient Matching," in Proceedings of the 2024 27th International Conference on Information Fusion (FUSION), Venice, Italy, 2024, pp. 1-8. DOI: 10.23919/FUSION59988.2024.10706324.

Huang, Y., Li, K., Mandal, A., Yang, J., "ForLion: a new algorithm for D-optimal designs under general parametric statistical models with mixed factors", Stat Comput, 34, 157. DOI:10.1007/s11222-024-10465-x.

Chen, Z., He, Y., Wu, D., Zuo, L., Li, K., Zhang, W., Deng, Z., "l1,2-Norm and CUR Decomposition based Sparse Online Active Learning for Data Streams with Streaming Features," Proceedings of the IEEE International Conference on Big Data (BigData 2024).

Zhou, S., Jiang, L., Li, K., Wang, F., Yang, J., "Natural Cubic Spline Approximation of Risk-Neutral Density," International Journal of Financial Studies, 2024, 12(4):127. DOI:10.3390/ijfs12040127.

M. N. Haque, N. J. Nasu, M. A. A. Mahbub, and M. Mohebujjaman, Two-grid Stabilized Lowest Equal-Order Finite Element Method for the Dual-Permeability-Stokes Fluid Flow Model, Journal of Scientific Computing, in press, published online 11/15/2024.

M. Mohebujjaman, M. A. A. Mahbub, M. Xiao, An Efficient and Accurate Penalty-projection Eddy Viscosity Algorithm for Stochastic Magnetohydrodynamic Flow Problems, Journal of Scientific Computing, 101 (2), 2024.

M. Mohebujjaman, C. Buenrostro, M. Kamrujjaman, T. Khan, Decoupled algorithms for non-linearly coupled reaction-diffusion competition model with harvesting and stocking, Journal of Computational and Applied Mathematics 436, 115421, 2024.

C. Navasca, D. Dulal, R. Goudarzi "Covid-19 Pandemic Data Analysis Using Tensor Models", Computational Algorithm and Numerical Dimensions, 3:1 (2024)

C. Navasca, D. Dulal, R. Goudarzi, "A Modified Levenberg-Marquardt Algorithm for Tensor CP Decomposition with Applications in Image Compression", in 2024 IEEE Data Compression Conference (DCC), <https://arxiv.org/abs/2401.04670> (conference proceedings publication, appeared March 2024).

Nandor Simanyi: "Conditional Proof of the Ergodic Conjecture for Falling Ball Systems" Contemporary Mathematics, Vol. 797 (2024), pp. 75-83. DOI: <https://doi.org/10.1090/conm/797/15935>

M. Arnesen, M. Ehrnstrom, Atanas G. Stefanov, A maximisation technique for solitary waves: the case of the non-locally dispersive Whitham equation, Arch. Rat. Mech. Anal., 248, (2024), no.3, Paper No. 53.

B. Isom, D. Mantzavinos, Atanas G. Stefanov, Growth bound and nonlinear smoothing for the periodic derivative nonlinear Schrodinger equation, Math. Ann. 388, (2024), p. 2289--2329.

A. Ramadan, Atanas G. Stefanov, On the stability of solitary waves in the NLS system of the third-harmonic generation. Anal. Math. Phys., 14 (2024), no. 1 No. 4

G. Stolz, H. Abdul-Rahman and R. Sims, "Entanglement bounds for single-excitation energy eigenstates of quantum oscillator systems", Lett. Math. Phys. 114, 116(2024)

H. Abdul-Rahman, M. Darras, C. Fischbacher, G. Stolz, "Slow Propagation in Schrödinger operators with Large Periodic Potential", Ann. Henri Poincaré (2024)

M. Nguyen, R. Weikard, "Comparison and oscillation theorems for first order systems with distributional coefficients", Journal of Mathematical Analysis and Applications, vol. 535, no. 1, 2024, pp. Paper No. 128137, 12 pages.

S. Redolfi, R. Weikard, "On Fourier expansions for systems of ordinary differential equations with distributional coefficients", Journal of Functional Analysis, vol. 286, no. 9, 2024, pp. Paper No. 110370, 30 pages.

V. Bhardwaj, R. Weikard, "The limit-point/limit-circle classification for ordinary differential equations with distributional coefficients", Documenta Mathematica, vol. 29, no. 3, 2024, pp. 747–762.

Geng Chen and Yanni Zeng, "BV solutions to a hyperbolic system of balance laws with logistic growth", J. Differential Equations, 392 (2024), 128-164

Yanni Zeng, "Time asymptotic behavior of solutions to a chemotaxis model with logarithmic singularity", Applied Mathematical Analysis and Computations I - 1st SGMCM, Statesboro, USA, April 2–3, 2021 (Virtual), Springer (2024), 109-137