Preprints/Publications

Preprints

1. Painlevé transcendents in the defocusing mKdV equation with non-zero boundary conditions (with Zhaoyu Wang and Engui Fan)
(arXiv:2306.07073).

2. Soliton resolution and asymptotic stability of N-soliton solutions for the defocusing mKdV equation with finite density type initial data (with Engui Fan and Zechuan Zhang)
(arXiv:2108.03650).

Publications in refereed journals

1. Transient asymptotics of the modified Camassa-Holm equation (with Yiling Yang and Lun Zhang)
Journal of the London Mathematical Society, 110 (2024), e12967.
(DOI: 10.1112/jlms.12967) (arXiv:2308.06950)

2. On the Cauchy problem of defocusing mKdV equation with finite density initial data: long-time asymptotics in soliton-less regions (with Engui Fan and Zechuan Zhang)
Journal of Differential Equations, 372 (2023), 55-122.
(DOI: 10.1016/j.jde.2023.06.038) (arXiv:2108.06284)

3. Large-time asymptotics to the focusing nonlocal modified Kortweg-de Vries equation with step-like boundary conditions (with Engui Fan)
Studies in Applied Mathematics, 150 (2023), 1217-1273.
(DOI: 10.1111/sapm.12568) (arXiv:2208.01268)

4. Riemann-Hilbert approach for multisoliton solutions of generalized coupled fourth-order nonlinear Schrödinger equations (with Weiqi Peng and Shoufu Tian)
Mathematical Methods in the Applied Sciences, 43 (2020), 865-880.
(DOI: 10.1002/mma.5964)