

Preprints

4. Y. Luo. *Critical scattering for the nonlinear Schrödinger equation on waveguide manifolds*. Submitted. (arXiv: 2506.00442)
3. L. Forcella, Y. Luo and Z. Zhao. *Solitons, scattering and blow-up for the nonlinear Schrödinger equation with combined power-type nonlinearities on $\mathbb{R}^d \times \mathbb{T}$* . Submitted. (arXiv: 2409.15860)
2. A. Esfahani, H. Hajaiej, Y. Luo and L. Song. *On the focusing fractional nonlinear Schrödinger equation on the waveguide manifolds*. Submitted. (arXiv: 2305.19791)
1. Y. Luo. *Normalized ground states and threshold scattering for focusing NLS on $\mathbb{R}^d \times \mathbb{T}$ via semivirial-free geometry*. Submitted. (arXiv: 2205.04969)

Articles

12. Y. Luo. *A Legendre-Fenchel identity for the nonlinear Schrödinger equations on $\mathbb{R}^d \times \mathbb{T}^m$: theory and applications*. **J. Geom. Anal.** 34 (2024), no. 10, Paper No. 313.
11. Y. Luo. *Almost sure scattering for the defocusing cubic nonlinear Schrödinger equation on $\mathbb{R}^3 \times \mathbb{T}$* . **J. Funct. Anal.** 287 (2024), no. 4, Paper No. 110492, 33 pp.
10. P. Dondl, Y. Luo, S. Neukamm and S. Wolff-Vorbeck. *Efficient uncertainty quantification for mechanical properties of randomly perturbed elastic rods*. **Multiscale Model. Simul.** 22 (2024), No. 4, 1267-1325.
9. Y. Luo, X. Yu, H. Yue and Z. Zhao. *On well-posedness results for the cubic-quintic NLS on \mathbb{T}^3* . **Nonlinear Anal.** 257 (2025), Paper No. 113806, 9 pp.
8. Y. Luo. *Sharp scattering for focusing intercritical NLS on high-dimensional waveguide manifolds*. **Math. Ann.** 389 (2024), no. 1, 63-83.
7. H. Hajaiej, Y. Luo and L. Song. *On existence and stability results for normalized ground states of mass-subcritical biharmonic NLS on $\mathbb{R}^d \times \mathbb{T}^n$* . **SIAM J. Math. Anal.** 56 (2024), no. 4, 4415-4439.
6. Y. Luo. *On long time behavior of the focusing energy-critical NLS on $\mathbb{R}^d \times \mathbb{T}$ via semivirial-vanishing geometry*. **J. Math. Pures Appl.** 177 (2023), 415-454.
5. Y. Luo. *On the sharp scattering threshold for the mass-energy double critical nonlinear Schrödinger equation via double track profile decomposition*. **Ann. Inst. H. Poincaré C Anal. Non Linéaire** 41 (2024), no. 1, 187-255.
4. Y. Luo. *Sharp scattering threshold for the cubic-quintic NLS in the focusing-focusing regime*. **J. Funct. Anal.** 283 (2022), no. 1, Paper No. 109489, 34 pp.
3. Y. Luo. *On the local in time well-posedness of an elliptic-parabolic ferroelectric phase-field model*. **Nonlinear Anal. Real World Appl.** 65 (2022), Paper No. 103462, 30 pp.
2. Y. Luo and A. Stylianou. *On 3d dipolar Bose-Einstein condensates involving quantum fluctuations and three-body interactions*. **Discrete Contin. Dyn. Syst. Ser. B** 26 (2021), no. 6, 3455-3477.
1. Y. Luo and A. Stylianou. *Ground states for a nonlocal mixed order cubic-quartic Gross-Pitaevskii equation*. **J. Math. Anal. Appl.** 496 (2021), no. 1, Paper No. 124802, 20 pp.

Unpublished notes

- Y. Luo. *Large data global well-posedness and scattering for the focusing cubic nonlinear Schrödinger equation on $\mathbb{R}^2 \times \mathbb{T}$* . (arXiv: 2202.10219)
- Y. Luo and A. Stylianou. *Normalized ground states for 3D dipolar Bose-Einstein condensate with attractive three-body interactions*. (arXiv: 2202.09801)
- Y. Luo. *Scattering threshold for radial defocusing-focusing mass-energy double critical nonlinear Schrödinger equation in $d \geq 5$* . (arXiv: 2106.06993)