

Wissenschaftliche Veröffentlichungen

Eingereichte oder akzeptierte Arbeiten

- [1] Guido Schneider and Raphael Taraca. From the Zakharov system to the NLS equation on the torus.
- [2] Sarah Hofbauer and Guido Schneider. A linear Schrödinger approximation for the KdV equation via IST beyond the natural NLS time scale.
- [3] James Hornick, Dmitry Pelinovsky, and Guido Schneider. On the long-wave approximation of solitary waves in cylindrical coordinates.
- [4] Sarah Hofbauer, Xian Liao, and Guido Schneider. Validity of the Whitham approximation for a complex cubic Klein-Gordon equation
- [5] Wolf-Patrick Düll, Bastian Hilder, Guido Schneider. Analysis of the embedded cell method in 2D for the numerical homogenization of metal-ceramic composite materials. Journal of Applied Analysis accepted 04/24.
- [6] Christopher Chong, Dmitry Pelinovsky, and Guido Schneider. Oscillating homoclinic and heteroclinic solutions in a time-periodic FPU problem. SIADS accepted 11/24

2024

- [1] Wolf-Patrick Düll, Guido Schneider, Raphael Taraca. On the KdV approximation for a Boussinesq equation posed on the infinite necklace graph. Math. Methods Appl. Sci. 47, No. 12, 9796-9813 (2024).
- [2] Steffen Gilg and Guido Schneider. Approximation of a 2D Gross-Pitaevskii equation with a periodic potential in the tight-binding limit. Math. Nachr. 297, No. 10, 3870-3886 (2024).
- [3] Ioannis Giannoulis, Bernd Schmidt and Guido Schneider. NLS approximation for a scalar FPUT system on a 2D square lattice with a cubic nonlinearity, J. Math. Anal. Appl. 540, No. 2, Article ID 128625, 16 p. (2024).
- [4] Max Heß and Guido Schneider. The validity of the Derivative NLS approximation for systems with cubic nonlinearities. accepted J. Differ. Equations 410, 251-277 (2024).
- [5] Nicole Gauss, Anna Logioti, Guido Schneider, and Dominik Zimmermann. Global existence for long wave Hopf unstable spatially extended systems with a conservation law. JDDE 2024. <https://doi.org/10.1007/s10884-024-10380-9>
- [6] Tomáš Dohnal, Dmitry E. Pelinovsky and Guido Schneider. Traveling modulating pulse solutions with small tails for a nonlinear wave equation in periodic media. Nonlinearity 37 (2024) 055005 (36pp)

- [7] Tobias Lamm and Guido Schneider. Diffusive stability and self-similar decay for the harmonic map heat flow. *Journal of Differential Equations* 394 (2024) 320-344.

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- [1] Max Heß and Guido Schneider. A robust way to justify the Derivative NLS approximation. *Z. Angew. Math. Phys.* 74, No. 6, Paper No. 224, 20 p. (2023).
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- [1] Steffen Gilg, Guido Schneider, and Hannes Uecker. Modulated waves on graphene like metric graphs. *Mathematische Nachrichten* 295 (2022), no. 11, 2147-2170.
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