

# Code Documentation

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- Title: Weighted finite difference methods for the semiclassical nonlinear Schrödinger equation with multiphase oscillatory initial data, - Codes
- Description:  
(Abstract) Codes to generate the numerical examples in the publication "Weighted finite difference methods for the semiclassical nonlinear Schrödinger equation with multiphase oscillatory initial data". These codes use the MATLAB programming language.
- Keywords:  
finite difference method, cubic nonlinear Schrödinger equation, semiclassical scaling, highly oscillatory, modulated Fourier expansion, Wiener algebra, stability, error bound, asymptotic-preserving, uniformly accurate
- Language: English
- Publishers:  
Shi, Yanyan  
Lubich, Christian
- Production year: 2025
- Subject areas: Mathematics
- Resource type: Software
- Publication year: 2025
- Rights holders:  
Shi, Yanyan  
Lubich, Christian

- Funding:  
Deutsche Forschungsgemeinschaft - (SFB 1173: Wellenphänomene: Analysis und Numerik) Project-ID 258734477 - SFB 1173