



THE UNIVERSITY  
of NORTH CAROLINA  
at CHAPEL HILL

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## Analysis and PDE Seminar

September 28, 2022

2:30 - 3:30 p.m.

Zoom: 951 7895 5010

### Stability of solitary waves of the NLS equation

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**Abstract.** We consider the asymptotic stability of the solitary waves of 1D NLS equations, under the assumption that the linearized operator is generic (no endpoint resonance) and has no internal modes. Moreover, we also consider the 1D nonlinear Klein-Gordon equation with a potential, and give a result on small data existence. The method of analysis is based on the distorted Fourier transform. This is joint work with P. Germain and F. Pusateri.