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## High frequency solutions for 1D NLS

ABSTRACT:

We deal singularly perturbed 1D nonlinear Schrödinger equations. Especially we study the behavior and the existence of solutions whose number of peaks increase to  $\infty$  as the singular perturbation parameter  $\varepsilon \rightarrow 0$ . Adiabatic profiles for high frequency solutions play an important role in our argument.

This is a joint work with P. Felmer and S. Martínez in University of Chile, Santiago.