

Homogenization for the nonlinear Schrödinger equation with sprinkled nonlinearity

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The nonlinear Schrödinger equation with sprinkled nonlinearity was introduced recently as a model for the propagation of waves with strong self-interaction at defects of the medium distributed according to a homogeneous Poisson point process. In this talk we will present a homogenization result for this model. If time permits, we will also discuss how the solutions fluctuate around the homogenized limit. This is joint work with Benjamin Harrop-Griffiths.

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