

The nonlinear Schrödinger equation in spaces of infinite mass

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We consider the classical nonlinear Schrödinger equation in the whole space. Due to the properties of the linear flow, local existence results are usually obtained over L^2 subspaces. In this talk, we present several local existence results on L^p subspaces, $p > 2$. Moreover, even though the conserved mass and energy functionals may be infinite, some global well-posedness results can still be proved. This is partially joint work with V. Barros and F. Oliveira.

References

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