

EDPs Seminar

Speaker: Jacopo Schino (Institute of Mathematics of the Polish Academy of Sciences, Polonia).

Title: Infinitely many entire solutions to a mixed dispersion Schrödinger equation with generic non-linearity.

Abstract. I will present a multiplicity result for the mixed dispersion non-linear Schrödinger equation

$$-\Delta^2 u - \beta \Delta u = g(u), \quad u \in \mathcal{H}^2(\mathbb{R}^N)$$

focusing on the case $N \geq 5$, where the non-linearity $g: \mathbb{R} \rightarrow \mathbb{R}$ satisfies assumptions in the spirit of Berestycki & Lions.

After showing some compactness results, I will demonstrate how the variational approach of [1], which makes use of auxiliary functionals, can be used for this problem.

This is joint work in progress with Pietro d'Avenia and Alessio Pomponio, (Politecnico di Bari, Department of Mathematics, Mechanics & Management, Bari, Italy).

<https://uchile.zoom.us/j/83637923688?pwd=RVhhajNaWmxKbzNydIBGeFBLN1ZpUT09>

Thursday (28/10) at 4:15 pm (Chilean time).