Existence of solutions for a class of quasilinear Schrödinger equations with a positive parameter

Elisandra Gloss
UFPB
elisandra.gloss@academico.ufpb.br

Abstract In this talk we present some results of existence and qualitative properties of positive solutions for the following class of quasilinear Schrödinger equations:

$$-\Delta u + V(x)u + \frac{\kappa}{2}[\Delta(u^2)]u = h(u), \quad x \in \mathbb{R}^N, \tag{P_κ}$$

where κ is a real parameter, $N \geq 1$, $V(x)$ and $h(t)$ are continuous functions satisfying some additional conditions. Our main interest is in the case $\kappa > 0$.

References

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