

Resumo:

In this paper, we study the concentration phenomenon of a positive ground state solution of the nonlinear Schrödinger equation

$$-\epsilon^2 \Delta u + V(x)u = Q(x)|u|^{p-2}u \quad \text{in } \mathbb{R}^N.$$

The coefficient of the nonlinearity of the equation  $Q(x)$  changes sign. We prove that the solution has a maximum point at  $x_0 \in \Omega^+ = \{x \in \mathbb{R}^N : Q(x) > 0\}$  where the energy attains its minimum.