Constraint Minimizers of Inhomogeneous Mass Subcritical Minimization Problems

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Abstract

This paper considers minimizers of the following inhomogeneous L^2-subcritical energy functional \[E(u):=\int_{\R^N}|\nabla u|^{2}dx-\frac{2}{p+1}\int_{\R^N}m(x)|u|^{p+1}dx,%\ u\in H^{1}(\R^N), \] under the mass constraint $\|u\|^{2}_{2}=M$. Here $N\geq1$, $p\in(1,1+\frac{4}{N})$, $M>0$ and the inhomogeneous term $m(x)$ satisfies $0

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