

## On some minimization problems in $\mathbb{R}^N$

Mihai MARIȘ

### SUMMARY

We present some recent improvements of the concentration-compactness principle and show that they give a new insight in some minimization problems arising in the study of solitary waves for nonlinear dispersive equations. We consider both local and nonlocal equations having a Hamiltonian structure.

**Keywords:** constrained minimization, ground states, concentration-compactness principle

<sup>1</sup>Institut de Mathématiques de Toulouse  
Université Paul Sabatier  
118 Route de Narbonne, 31062 Toulouse, France  
email: [mihai.maris@math.univ-toulouse.fr](mailto:mihai.maris@math.univ-toulouse.fr)