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Existence of solitons-solutions for Kirchhoff equations type in Several Space Dimensions

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Abstract :

In this talk, we study a class of Lorentz invariant nonlinear field equations with nonlocal Term in several space dimensions. The fields are characterized by a topological invariant, which we call the charge. We prove the existence of a static solution which minimizes the energy among the configurations with nontrivial charge. In this spirit, a considerable amount of work has been done by V. Benci and collaborators and a model equation proposed in [1] will be the topic of this paper. The main purpose is to obtain soliton-like solutions with nonlocal term.

Key words and phrases: Soliton, variational calculus, splitting lemma and compactness properties related to symmetry.

AMS (MOS) Subject Classifications : 35C08,35J50,35J60.

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