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**Positive solutions for nonlinear Schrödinger-Kirchhoff equations in  $\mathbb{R}^3$ .** (English)

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**Summary:** In this paper, we study the nonlinear Schrödinger-Kirchhoff-type equation with pure power nonlinearities in  $\mathbb{R}^3$  by variational methods. By carrying out the constrained minimization on a special manifold which is a combination of the Nehari manifold and Pohozaev manifold, we proved the existence of positive radial solutions of this equation for the power  $p \in (1, 5)$ . The results of this paper extend some existing conclusions, especially for  $p \in (1, 2]$ .

**MSC:**

**35J60** Nonlinear elliptic equations

**35B09** Positive solutions to PDEs

**35A01** Existence problems for PDEs: global existence, local existence, non-existence

**35A15** Variational methods applied to PDEs

**Keywords:**

Schrödinger-Kirchhoff-type equations; existence of positive radial solutions; variational methods

**Full Text:** [DOI](#)

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