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**Infinitely many solutions for nonlocal $p$-Kirchhoff systems with critical exponent.** (Chinese. English summary) [Zbl 07448799]  

Summary: In this paper, we consider a nonlocal $p$-Kirchhoff system with critical exponent on a smooth bounded domain $\Omega \subset \mathbb{R}^N$. Firstly, the existence of solutions for subcritical perturbation problems is studied. Then, by analyzing the compactness of the solution sequence of the subcritical perturbation problem, we prove that the system of equations has infinitely many high energy solutions by means of the infinite number of solutions and the maximum and minimum theorem of the subcritical perturbation problem.

**MSC:**

- 35J62 Quasilinear elliptic equations
- 35B33 Critical exponents in context of PDEs

**Keywords:**

infinitely many solutions of high energy; $p$-Kirchhoff quasilinear systems; index theory; maximin theorem