Guo, Zhenyu; Liu, Min; Tang, Zhongwei
A system involving fractional Hardy-Schrödinger operators and critical Hardy-Sobolev exponents. (Chinese. English summary) Zbl 07494968

Summary: We study a system involving fractional Hardy-Schrödinger operators and critical Hardy-Sobolev exponents. Under appropriate conditions, the existence and correlation results of ground state solutions to this system are obtained. To overcome the lack of compactness, we consider a proper approximate problem with subcritical nonlinear terms defined in a bounded domain. Moreover, a compact embedding result for the approximate problem is proved.

MSC:
35R11 Fractional partial differential equations
35B33 Critical exponents in context of PDEs

Keywords:
ground state solutions; fractional Hardy-Schrödinger operators; fractional critical Hardy-Sobolev exponents

Full Text: DOI