

## عنوان مقاله:

Distributional solution for semilinear system involving fractional gradient and a numerical example

## محل انتشار:

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## خلاصه مقاله:

In this research, a semilinear fractional system involving a new operator is tackled. The existence of a distributional solution is demonstrated and the Leray-Schauder degree method is used to deal with the existence of this system. For the uniqueness of the solution, we use the contraction principle with some assumptions made on the semilinear term  $\Phi_1$  and  $\Phi_2$ . Then, using an example and the finite difference method a numerical investigation of this system is conducted.

## کلمات کلیدی:

Distributional solution, semilinear elliptic system, Leray-Schauder degree, Riesz fractional gradient, homotopy invariance, Partial differential equations

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1740044>

