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Positive solutions for an integro-differential equation with singular nonlinear term. (English)

Zbl 1212.45013

Differ. Integral Equ. 18, No. 9, 1055-1080 (2005).

Summary: The existence of a positive solution in a weighted Sobolev space for a homogeneous semilinear elliptic integro-differential Dirichlet problem is proved. The integral operator of the equation depends on a nonlinear function with a singularity at the origin.

MSC:

45K05 Integro-partial differential equations
45M20 Positive solutions of integral equations
45G05 Singular nonlinear integral equations

Cited in **3** Documents

Keywords:

positive solutions; semilinear elliptic integro-differential Dirichlet problem