Differential
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EXISTENCE RESULTS FOR SOME NONLOCAL PROBLEMS

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Abstract. We consider nonlocal elliptic boundary value problems of the form

$$-\operatorname{div}(\mathscr{A}(x,u)\nabla u) = \lambda f(u)$$

with Dirichlet boundary conditions where $\mathscr{A}$ is a nonlocal function. We prove existence of nontrivial positive solutions if the graph of the non linear function f is of single positive loop type. Methods of approximation and Schauder fixed point theorem are the main tools to be used here.

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