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Equations with discontinuous nonlinear semimonotone operators

Abstract: The aim of this paper is to present an existence theorem for the operator equation of Hammerstein type $x + KF(x) = 0$ with the discontinuous semimonotone operator F. Then the result is used to prove the existence of solution of the equations of Urysohn type. Some examples in the theory of nonlinear equations in $L_p(\Omega)$ are given for illustration.