

On the Uniqueness of Topological Degrees for Densely Defined Operators of Type (S_+)

Let X be a separable reflexive Banach space, G a bounded open subset of X , and L a dense linear subspace of X . The uniqueness of the topological degree, $d(A, G, 0)$, for mappings $A : X \supset D(A) \rightarrow X^*$ satisfying Condition $(S_+)_L$ invariant under certain homotopy is established. The existence of such a topological degree is first established by Kartsatos and Skrypnik, and later, by Berkovits by using a different approach.