

THE INVARIANCE TO HOMOTOPY OF THE TOPOLOGICAL  
DEGREE IN SPACE WITH SEMI-INNER PRODUCT

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**Abstract.** Some results in topological degree theory are given for spaces with inner product (Hilbert spaces). We give a method to extend these results in generally normed spaces using the semi-scalar product introduced by G. Lumer. Results on existence of eigenvalues, on fixed point theory and on surjectivity for some nonlinear operators are given.