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ON THE UNIQUENESS OF TOPOLOGICAL DEGREE IN INFINITE DIMENSION

In some previous papers, with M. Furi, we presented a fairly simple construction of a topological degree for compact perturbations of Csp1 Fredholm maps of index zero between Banach spaces, which verifies the three fundamental properties of the classical degree theory: normalization, additivity and homotopy invariance. We show here that this degree is unique. Precisely, by an axiomatic approach similar to the one due to Amann-Weiss, we prove that there exists at most one real function satisfying the above properties, and this function must be integer valued.

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