

KKM PROPERTY IN TOPOLOGICAL SPACES

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ABSTRACT. In this paper we give a brief survey of some recent generalizations of the Fan-KKM theorem. We introduce a new convex structure on a nonempty set M which contains all different concepts of convexity. Some approximate fixed point theorems will be established for the multivalued mapping with S-KKM property on the Φ spaces. We also obtain a generalized Fan matching theorem, a generalized Fan-Browder type theorem, and a new version of Sadovskii's fixed point theorem.