

Fixed Points for Non-Compact Set-Valued Maps

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Abstract. We introduce a new coercivity type condition for set-valued maps defined on generalized convex topological spaces (L-spaces). The main result is an extension of the celebrated KKM's principle on the intersection of a family of closed sets subject to a weakened compactness condition and the fixed point formulation of this generalized principle extends the Browder-Fan fixed point theorem to set-valued maps defined on non-compact subsets of L-spaces.