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Fixed point results for multivalued contractions on a metric space with a graph and applications.

We present fixed point results for multivalued maps defined on a complete metric space endowed with a directed graph, called weak G -contractions, which send connected points into connected points and contract the length of paths. We also present applications to graph-directed iterated function systems. More precisely, a fixed point result for G -contractions is applied to obtain more information on the attractor K of a graph-directed iterated function system. (Received May 30, 2014)