The Contraction Principle for Multivalued Mappings on a Modular Metric Space with a Graph

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Abstract.

We study the existence of fixed points for contraction multivalued mappings in modular metric spaces endowed with a graph. The notion of a modular metric on an arbitrary set and the corresponding modular spaces, generalizing classical modulars over linear spaces like Orlicz spaces, were recently introduced. This paper can be seen as a generalization of Nadler's and Edelstein's fixed point theorems to modular metric spaces endowed with a graph.