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FIXED POINT THEOREMS IN PREMETRIC SPACES

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ABSTRACT

We give a characterization of Hausdorff spaces satisfying first axiom of countability using Long orbit or empty value principle. Further, we prove a fixed point theorem in first countable premetric Husdorff spaces without any conditions for compactness or completeness. We obtain a Banach type contraction principle in Σ-semicomplete spaces introduced by Suzuki (2018).

***K*eywords** Multi-valued mappings · Fixed points · Sigma-semicompleteness

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