

# Fixed point theorems of Perov type and Ulam's stability

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Perov theorem claims existence and uniqueness of a fixed point for a new kind of a contraction on a generalized metric space involving positive matrix converging to zero. We give extensions of this result in various settings and include different types of contractions. The contractive condition of Perov type on cone metric spaces is defined and it involves an operator instead of a matrix. We also discuss Ulam-Hyers stability of functional equations, making a new approach by applying fixed point results of Perov type.

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