

Fixed Point Theorems in Partial Fuzzy Metric Spaces

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Abstract: *This paper explores the research on fixed points in the context of partial fuzzy metric spaces, a patching of fuzzy metric spaces and partial metric spaces. In partially ordered fuzzy partial metric spaces a number of new fixed point theorems of contractive mappings are proved. The findings generalize the classical Banach contraction principle and generalize a number of existing findings in the fuzzy metric theory. The presence and the uniqueness of the fixed points when the generalized conditions of contracting are considered are established. They also give applications of the obtained results to fuzzy differential equations, optimization problems, and uncertainty decision-making models. The above findings help the development of theories of fuzzy analysis, as well as give practical tools in resolving nonlinear problems in an uncertain environment [1].*

Keywords: Fixed Point Theory, Fuzzy Metric Space, Partial Fuzzy Metric Space, Contractive Mapping, Banach Contraction Principle

