

Fixed Point Results for Asymptotically Regular Interpolative ω -Proinov-Kannan and Proinov-Hardy-Rogers Contractions in Orthogonal Quasi-Partial b -Metric Spaces

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Abstract: *In this study, we investigate asymptotically regular interpolative ω -Proinov-Kannan and ω -Proinov-Hardy-Rogers type contraction mappings in the framework of orthogonal quasi-partial b -metric spaces. We establish new fixed-point theorems under suitable contractive conditions. The presented results generalize several well-known theorems in metric and b -metric spaces. Examples are provided to validate the applicability of the results.*

Keywords: Fixed point theory, b -metric space, quasi-partial metric, orthogonal set, Kannan contraction, Hardy-Rogers contraction, Proinov contraction