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EXPLORATION OF NOVEL CONVERGENCE CONCEPTS FOR SEQUENCES IN OCTONION-VALUED METRIC SPACES

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Abstract. In this study, quasi-invariant convergence and quasi-invariant statistical convergence for sequences in octonion-valued metric spaces are examined. Bounded sequences with quasi-invariant convergence are characterized. Additionally, an examination of the relationships between several forms of quasi-almost convergence is presented. The types of quasi-strong lacunary invariant convergence are also defined. Furthermore, analysis is done on the connections between these recently suggested forms of convergence and the concepts of sequence convergence that are currently in use.

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