
ASYMPTOTIC MEIR KEELER CONTRACTION MAPPINGS ON MULTIPLICATIVE METRIC SPACES WITH AN INTEGRAL EQUATION APPLICATION

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ABSTRACT

In current work, multiplicative nonlinear contraction mapping, multiplicative Meir Keeler contraction mapping, multiplicative asymptotic contraction mapping and multiplicative asymptotic Meir Keeler contraction mapping are defined and investigated on multiplicative metric spaces. After that, considering these mappings, the new fixed point theorems are obtained and proved in multiplicative metric spaces. Finally, an interesting application related to integral equation is presented to make the subject clearer and more understandable from a different perspective. .

Keywords Multiplicative Metric · Multiplicative Mapping · Asymptotic Contraction · Meir Keeler Contraction · Asymptotic Meir Keeler Contraction · Fixed Point

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