Common and coupled random fixed point theorems in S-metric spaces

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Abstract:

The aim of this paper is to prove some common and coupled random fixed point theorems for a pair of weakly monotone random operators satisfying some rational type contraction in the setting of partially ordered S-metric space. Our results extend and generalize many existing results in the literature. Moreover, an example is given to support our results. Finally, the results are used to prove the existence and uniqueness of solution of some random functional equations.

Keywords:

Measurable mapping, random operator, coupled random coincidence point, S-Metric space, partially ordered set, mixed weakly monotone property.

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