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BIJECTIVE SOFT MATRIX THEORY AND ITS APPLICATIONS

Abstract:

Soft set theory was firstly introduced by Molodtsov [1]. In the papers [1,2,3], the soft set theory was successfully applied in several directions, such as smoothness of functions, gametheory, operations research, riemann integration, Perron integration, probability, theory of measurement and so on. Gong et al. [4] presented bijective soft set theory. Since it is easy to store and manipulate matrices, transferring of bijective soft sets to soft matrices is very useful. Soft matrices which are representations of soft sets was firstly defined by Çağman and Enginoğlu [5].

In this study, we construct bijective soft matrix theory and investigate some properties of bijective soft matrices, in detail. We demonstrate some matrix operations are preserved for bijective soft matrices, such as AND product. Finally, we indicate that can use the bijective soft matrices in decision making problems.

Keywords:

Bijective soft sets, Soft matrix, Bijective soft matrix.

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