

MATRIX REPRESENTATION OF SOFT POINTS AND ITS
APPLICATION

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Abstract

The innovation about soft point in this study is, we define soft point's soft matrix form which was not described before for each set of parameters. The matrix representation of soft points is useful for storing all soft points that can be obtained in all different parameters. We then apply it to some important inequalities in classical set theory and observe them as soft equalities in soft set theory. Finally, we prove that our proposed soft matrix provides every soft point that changes with each parameter that takes place in a soft set and enables detailed examination in application of soft set theory.

Keywords: Soft set, soft point, soft matrix, soft matrix form of soft point

References

- [1] H. Aktaş and N. Çağman, Soft sets and soft groups, *Inform. Sci.* **177** (2007), 2726-2735.
- [2] N. Çağman and S. Enginoğlu, Soft matrix theory and its decision making, *Comput. Math. Appl.* **59** (2010), 3308-3314.
- [3] S. Das and S.K. Samanta, Soft Real Sets, Soft Real Numbers and Their Properties, *J. Fuzzy Math.* 20 (3) (2012) 551-576.
- [4] P.K. Maji, R. Biswas and A.R. Roy, Soft set theory, *Comput. Math. Appl.* 45 (2003), 555-562.
- [5] D. Molodtsov, Soft set theory-first results, *Comput. Math. Appl.* **37**, (1999) 19-31.
- [6] D. Molodtsov, The Theory of Soft Sets (in Russian). URSS Publishers, Moscow, (2004).
- [7] S. Mondal and M. Pal, Soft matrices, *African Journal of Mathematics and Computer Science Research* Vol. 4(13), pp. 379-388, (2011).

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