

The Characteristic Function of a Neutrosophic Set

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Abstract: The purpose of this paper is to introduce and study the characteristic function of a neutrosophic set. After given the fundamental definitions of neutrosophic set operations generated by, we obtain several properties, and discussed the relationship between neutrosophic sets generated by Ng and others. Finally, we introduce the neutrosophic topological spaces generated by Ng . Possible application to GIS topology rules are touched upon.

Key words: Neutrosophic Set; Neutrosophic Topology; characteristic Function