## **Topological Neutrosophic Ideal Theory**

## Neutrosophic Local Function and Generated Neutrosophic Topology

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**Abstract:** In this paper we introduce the notion of ideals on neutrosophic set which is considered as a generalization of fuzzy and fuzzy intuitionistic ideals studies in [9,11], the important topological neutrosophic ideals has been given in [4]. The concept of neutrosophic local function is also introduced for a neutrosophic topological space. These concepts are discussed with a view to find new neutrosophic topology from the original one in [8]. The basic structure, especially a basis for such generated neutrosophic topologies and several relations between different topological neutrosophic ideals and neutrosophic topologies are also studied here. Possible application to GIS topology rules are touched upon.

**KEYWORDS:** Neutrosophic Set, Intuitionistic Fuzzy Ideal, Fuzzy Ideal, Topological neutrosophic ideal, Neutrosophic Topology.