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NEW APPROACH ON BINARY SUPRA MULTISET TOPOLOGICAL SPACE

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Abstract: In this paper, we introduce the concept of binary supra M-topology (bsm), which combines features of binary supra topology and supra M-topology. Several concrete examples are presented to illustrate the structure and behavior of binary supra M-topology. Additionally, various properties of binary supra M-topology are explored and analyzed.

Keywords and Phrases: Binary supra M-topological space, binary supra open multiset, binary supra closed multiset, binary supra interior multiset, binary supra closure multiset.

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1. Introduction

A multiset is regarded as a generalization of a set in mathematics. According to classical set theory, a set is a clearly defined collection of unique items. If an object can appear more than once in a set, then the mathematical structure is called a *multiset* [2]. In a topological context, a multiset considers the number of occurrences of an element x in a multiset M. We represent the multiset M drawn from the set $X = \{x_1, x_2, \ldots, x_n\}$ as $M = \{m_1/x_1, m_2/x_2, \ldots, m_n/x_n\}$, where m_i is the number of occurrences of the element x_i (for $i = 1, 2, \ldots, n$) in the multiset M.The concept of an M-topological space has been investigated through multiset