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WEAKLY MENGER DITOPOLOGICAL TEXTURE SPACES

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Weakly Menger spaces were introduced by B. A. Pansera in topological spaces. We extend this idea to define weakly Menger ditopological texture spaces. Also we study the interrelation between Menger, Weakly Menger and almost Menger ditopological texture spaces. We have characterized some preservations of these notion under direlation, difunction and various type of mappings.

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A STUDY OF TOPOLOGICAL PROPERTIES USING MORPHOLOGICAL OPERATORS ON A HYPERGRAPH

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A topological space S = (X,T) is compatible with a hypergraph H if X = $V_H \cup E_H$ where V_H and E_H are the vertex set and edge set respectively. Also, for all e ∈ E_H, {e} is open and for any map f from edge set to vertex set, δ(e) = f_H(e). S is strictly compatible if every vertex is also a closed point. S is also called Topological Hypergraphs. A cutting of a topological space X is an ordered triple (A,x.B) where {A,B} is a separation of X{ x }. Morphological operators are nonlinear operators which can be defined on several algebraic structures. Due to the compatibility between a hypergraph and topological space, a cutting of a topological space is similar to generation of subgraph of a hypergraph. A topological space is weakly Hausdorff if, for any distinct points x,y, there exists neighbourhoods U_x,U_y of x,y such that their intersection is finite. If there is only one element is common, then the topological space is called almost Hausdorff. Almost Hausdorff Topological space is a uniquely adjacent topologized hypergraph. Another way of defining a neighbourhood is in terms of subsets A,B of(or vertex set of subhypergraphs) X. This is defined as $N_B(A)$ = {∪ $\forall_{x\in A} D$(A)/ there is atleast one y ∈ B in D(A)} Here D(A) represent the morphological dilation of a set A. In this paper topologized sub hypergraphs are constructed using morphological operators like

erosion, dilation and combination of these operators. Because of the compatibility, generation of these sub hypergraphs induces almost Hausdorff space. Closure function c : $P(X) \rightarrow P(X)$ which suggests a notion of reaching or accessing from a given set A and this is similar to the neighbourhood NB(A) defined above. Such a closure operation is analogous to Morphological dilation on a hypergraph. This neighbourhood operation also satisfies Kuratowskis closure axioms. Some topological properties of Hypergraph are also discussed in this paper.

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TOPOLOGICAL PROPERTIES OF SOME SEQUENCES DEFINED OVER N-NORMED SPACES

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The paper investigates some classes of real number sequences over n-normed spaces defined by means of Orlicz functions, a bounded sequence of strictly positive real numbers, a multiplier and a normal paranormed sequence space. Relevant properties of such classes have been investigated. Moreover, relationships among different such classes of sequences have also been studied under various parameters and conditions. Finally, the spaces are investigated for some other useful properties.