

A NOTE ON A TOPOLOGICAL SPACE GRAPHS

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Abstract

Topological graphs are play an important role in the networking especially in virtual networking in computer science as well as in biological sciences. In this paper, we define a graph “Given a topological space τ on a non-empty set X , a graph $G_X(\tau)$ whose vertex set τ arcs exist between two elements of τ if one is included in another” is named as “ Topological Space Graph”. studied the concepts spanning star graph, diameter of topological space graph, and the relation between topological space graph and complete graph, hausdroff space, Hamiltonian, bipartite graph on topological space graph and obtained some results on these concepts.

Key Words : *Graph, Topological graph, Topological space graph, Diameter, Spanning star complete graph, Hausdroff space, Hamiltonian, Bipartite graph.*

AMS Subject Classification : 68R10, 81Q30.

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