Homogeneous Fuzzy Topological Spaces

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B.Sc. (Mathematics)
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1993

Thesis submitted in partial fulfillment of the requirements
for the degree of Master of Science (Mathematics) at
Yarmouk University

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September, 1995
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Abstract

We generalized the notion of homogeneity in ordinary topological spaces to quasi fuzzy topological spaces. We defined homogeneous, \( n \)-homogeneous, weakly \( n \)-homogeneous, countable dense homogeneous, densely homogeneous and strong locally homogeneous quasi fuzzy topological spaces. Then we proved that our definitions are good extensions of the ordinary topological spaces in the sense of Lowen.

We also examined several results in ordinary topological spaces and studied their analog in quasi fuzzy spaces. We established the validity of some of those results and gave counterexamples to others.