

NEW CONCEPTS OF ISOMORPHISM ON NEUTROSOPHIC FUZZY GRAPHS

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Abstract: In this article, a new dimension named isomorphism, weak and co-weak isomorphism in the neighbourly (highly) streak erratic neutrosophic fuzzy graphs and its complement are introduced and some of this properties are discussed. Moreover, isomorphic properties in the μ - complement of neighbourly (highly) streak erratic neutrosophic fuzzy graph are established.

Keywords and Phrases: Neutrosophic fuzzy graphs, neighbourly streak erratic neutrosophic fuzzy graph, highly streak erratic neutrosophic fuzzy graph.

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1. Introduction

Smarandache [8] proposed Neutrosophic Graphs in some special types such as neutrosophic multipolar graphs. Broumi [1] introduced certain types of single valued neutrosophic graphs. Neighbourhood degree of a vertex in neutrosophic graphs were introduced in [2]. Up to now, to the best of our knowledge there has been no study on isomorphic concepts of neutrosophic fuzzy graph. This we have proposed in this paper, a new concept of isomorphism on neutrosophic fuzzy graph. We have provided some examples when and where necessary. Also we have proved