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MINIMAL rgα-OPEN SETS AND MAXIMAL rgα-CLOSED SETS

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Abstract

A proper nonempty $rg\alpha$-open subset U of a topological space X is called a minimal $rg\alpha$-open set if any $rg\alpha$ -open set contained in U is ϕ or U. A proper nonempty $rg\alpha$-closed subset F of a topological space X is called a maximal $rg\alpha$-closed set if any $rg\alpha$-closed set containing F is either X or F. A proper nonempty $rg\alpha$-closed subset F of a topological space X is called a minimal $rg\alpha$-closed set if any $rg\alpha$-closed set contained in F is ϕ or F. A proper nonempty $rg\alpha$-open subset U of a topological space X is called a maximal $rg\alpha$ -open set if any $rg\alpha$-open set containing U is either X or U. We prove that the complement of a minimal (maximal) $rg\alpha$-open set is a maximal (minimal) $rg\alpha$-closed set. During this process some properties of these sets are also obtained.
(0, -1.1989063) (9.079062, 1.1789062) [dotsize=0.12] (1.1140625, 1.0789063) [dotsize=0.12] (0.5340625, 0.05890625)

Key Words and Phrases : *Minimal rgα-open sets, Maximal rgα-closed sets, Minimal rgα-closed sets, Maximal rgα-open sets.*

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