# Regularity and Normality via $e^{\boldsymbol{*}}\boldsymbol{\theta}\text{-}\text{open Sets}$

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## Regularity and Normality via $e^*\theta$ -open Sets

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#### **Abstract**

Regular and normal space concepts, which has an important role in the classification of topological spaces, was introduced and studied respectively by Vietoris [4] and Tietze [3].

In this study,  $e^*\theta$ -regular space, which is a generalization of regular space, has been studied by defining via  $e^*\theta$ -open sets introduced by Farhan and Yang [2]. In addition,  $e^*\theta$ -normal space, which is a generalization of normal space, was defined by Ayhan and Özkoç [1]. Some characterizations and main results of  $e^*\theta$ -normal space have been studied in this work.

The main purpose of this study is to obtain some characterizations of  $e^*\theta$ -regular and  $e^*\theta$ -normal spaces and to investigate some of their fundamental properties.

**Keyword(s):**  $e^*\theta$ -open sets,  $e^*\theta$ -regularity,  $e^*\theta$ -normality.

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