

## INTUITIONISTIC FUZZY QUASI-INTERIOR IDEALS IN ORDERED $\Gamma$ -SEMIGROUPS

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**ABSTRACT.** In this study, the generalization of quasi-interior ideals on intuitionistic fuzzy ordered  $\Gamma$ -semigroups is introduced. Firstly, quasi-interior ideal on the ordered semi-group is defined and then, the defined concept has been carried over to intuitionistic fuzzy sets. Basic algebraic properties of quasi-interior ideals on intuitionistic fuzzy ordered  $\Gamma$ -semigroups are proven. The upper and lower  $t$ -level cuts of an intuitionistic fuzzy ordered  $\Gamma$ - quasi interior ideal are investigated. The relationship of this structure with intuitionistic fuzzy ordered  $\Gamma$ -ideals is discussed.

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