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## BETWEEN $\tau^*$ -CLOSED AND $*Ig$ -CLOSED SETS

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### ABSTRACT

One of the important basic notions in topological spaces is closed sets as well as open sets. Levine (resp. Jankovic et al. in 1990) introduced the notion of  $g$ -closed (resp.  $\tau^*$ -closed) sets as two generalizations of closed sets. In this study, firstly we define a new closed set type called  $*pIg$ -closed is weaker than  $\tau^*$ -closed and stronger than  $*Ig$ -closed. Then we obtain some properties of it. Similarly, we introduce a new type open sets called  $*pIg$ -open as complement of  $*pIg$ -closed and give some properties. Finally, we state when  $*pIg$ -closed is conserved.

**Keywords**  $g$ -Closed Sets, ideal,  $\tau^*$ -Closed Sets,  $*Ig$ -Closed Sets,  $*pIg$ -Closed Sets

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