Maki, H.; **Devi, R.**; **Balachandran, K.**

Associated topologies of generalized α-closed sets and α- generalized closed sets. (English)

Zbl 0821.54002
Mem. Fac. Sci., Kochi Univ., Ser. A 15, 51-63 (1994).

O. Njåstad [Pac. J. Math. 15, 961-970 (1965; Zbl 0137.419)] defined a subset A of a topological space (X, τ) to be α- open if $A \subset \text{int}(\text{cl}(\text{int}A))$, and a subset B of X to be α-closed if $X - B$ is α-open. The collection τ^α of all α-open subsets of (X, τ) is a topology on X, and $\tau \subset \tau^\alpha$.

The authors of the paper under review introduce two classes of generalized α-closed subsets, with the following definitions. A subset B of (X, τ) is defined to be α-generalized closed [α^{**}-generalized closed] in (X, τ) if $\tau^\alpha\text{cl}B \subset U$ [$\tau^\alpha\text{cl}B \subset \text{int}(\text{cl}U)$] whenever $B \subset U$ and U is open in (X, τ). The paper considers the basic properties of these two classes of subsets, and their associated topologies.

Reviewer: I.L.Reilly (Auckland)

MSC:

54A10 Several topologies on one set (change of topology, comparison of topologies, lattices of topologies)
54E55 Bitopologies

Keywords:

generalized closed sets