

Almost β -Normality IV

Definition 1: A topological space is almost normal if for every pair of disjoint closed sets E and F , one of which is regularly closed, there exist disjoint open sets U and V such that $E \subseteq U$ and $F \subseteq V$. [3]

Definition 2: A topological space is β -normal if for every pair of disjoint closed sets E and F , there are open sets U and V such that $\overline{E \cap U} = E$, $\overline{F \cap V} = F$, and $\overline{U} \cap \overline{V} = \emptyset$. [1]

Definition 3: A topological space is almost β -normal if for every pair of disjoint closed sets E and F , one of which is regularly closed, there are open sets U and V such that $\overline{E \cap U} = E$, $\overline{F \cap V} = F$, and $\overline{U} \cap \overline{V} = \emptyset$. [2]

We will continue our discussion from last week comparing almost β -normality to other normality type properties.

[1] A. Arhangel'skii, L. Ludwig, On α -normal and β -normal spaces, Comment. Math. Univ. Carolinae 42 (3) (2001) 507–519.

[2] A. Das, P. Bhat, J. Tartir, On a simultaneous generalization of β -normality and almost normality, Filomat 31 (2) (2017) 425–430.

[3] M. Singal, S. Arya, Almost normal and almost completely regular spaces, Glasnik Mat. 25 (5) (1970) 141–152.