

## Almost $\beta$ -Normality

**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  $\beta$ -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  $\beta$ -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 introduce almost  $\beta$ -normality and compare its properties with those of normality.

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

[2] A. Das, P. Bhat, J. Tartir, On a simultaneous generalization of  $\beta$ -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.