

**Abstract:**

Two bounded linear operators  $A$  and  $B$  on a complex Hilbert space are said to  $\lambda$ -commute for  $\lambda \in \mathbb{C}$  provided that:  $AB = \lambda BA$ . In this paper we look for some properties satisfied by the operators  $A$  and  $B$  so that  $\lambda = 1$ . It is shown among other results that if one of the operators raised to some power is normal and  $0$  does not belong to the interior of the numerical range of the other operator then:  $A = 1$  AMS 200 Mathematics Subject Classification 47B47 47A30, 47B20