



WEYL'S THEOREM FOR ALGEBRAICALLY ABSOLUTE- (p, r) -PARANORMAL OPERATORS

D. SENTHILKUMAR¹ AND P. MAHESWARI NAIK^{2*}

Communicated by M. Fujii

ABSTRACT. An operator $T \in B(H)$ is said to be absolute- (p, r) -paranormal if $\| |T|^p |T^*|^r x \| \geq \| |T^*|^r x \|^{p+r}$ for all $x \in H$ and for positive real number $p > 0$ and $r > 0$, where $T = U|T|$ is the polar decomposition of T . In this paper, we discuss some properties of absolute- (p, r) -paranormal operators and show that Weyl's theorem holds for algebraically absolute- (p, r) -paranormal operators.

¹ DEPARTMENT OF MATHEMATICS, GOVERNMENT ARTS COLLEGE, COIMBATORE-641 018, TAMIL NADU, INDIA.

E-mail address: senthilsenkumhari@gmail.com

² DEPARTMENT OF MATHEMATICS, GOVERNMENT ARTS COLLEGE, COIMBATORE-641 018, TAMIL NADU, INDIA.

E-mail address: maheswarinaik21@gmail.com

Date: Received: 28 December 2009; Revised: 12 April 2010; Accepted: 27 April 2010.

* Corresponding author.

2010 *Mathematics Subject Classification.* Primary 47A13; Secondary 47A30, 47B06.

Key words and phrases. Absolute- (p, r) -paranormal operator, nilpotent, normaloid, Riesz idempotent, single valued extension property, stable index, Drazin invertible, Drazin spectrum.