

On Some n -Involution and k -Potent Operators on Hilbert Spaces

Bernard Mutuku Nzimbi¹, **Beth Nyambura Kiratu**^{2*}, Stephen Wanyonyi Luketero¹
¹ School of Mathematics, College of Biological and Physical Sciences, University of Nairobi, Nairobi, Kenya ²**Department of Pure and Applied Mathematics, Faculty of Applied Sciences and Technology, Technical University of Kenya, Nairobi, Kenya**

Abstract:

In this paper, we survey various results concerning n -involution operators and k -potent operators in Hilbert spaces. We gain insight by studying the operator equation $nT = T^k$, with $1 < k < n \leq \infty$ where $n, k \in \mathbb{N}$. We study the structure of such operators and attempt to gain information about the structure of closely related operators, associated operators and the attendant spectral geometry. The paper concludes with some applications in integral equations. Keywords: n -Involution, Idempotent, Spectral Radius, Twist, Invection, Q -Equivalence

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