

Polynomially compact bilinear endomorphisms of finite type of Banach algebras

John Emenyu

Mbarara University of Science and Technology P. O. Box 1410 Mbarara – Uganda

Abstract

Kamowitz's classical result on a compact endomorphism T of a commutative Banach algebra A asserts that $\dim \ker(T^* \circ \phi) < \infty$ where T^* is the adjoint of T and ϕ is the set of multiplicative linear functionals on A . This paper extends the underlying Kamowitz's result to absolutely r -summing operators for $1 < r < \infty$ or more generally polynomially compact endomorphisms as well as bilinear operators of finite type generated by Polynomially compact operators of a commutative Banach algebra. Keywords: Polynomial compactness; Endomorphism; Algebra; absolute summability; bilinear operators.