

# **Polynomially compact bilinear endomorphisms of finite type of Banach algebras**

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## **Abstract**

Kamowitz's classical result on a compact endomorphism  $T$  of a commutative Banach algebra  $A$  asserts that  $\dim \ker(T^* - \lambda I) < \infty$  where  $T^*$  is the adjoint of  $T$  and  $\ker(T^* - \lambda I)$  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.