

A. Blanco, M. Boumazgour and T. J. Ransford, **On the norm of elementary operators**, *J. London Math. Soc.* 70 (2004), 479–498.

Abstract

We consider the norm problem for elementary operators of the form $U_{a,b} : \mathcal{A} \rightarrow \mathcal{A}$, $x \mapsto axb + bxa$ ($a, b \in \mathcal{A}$) in the special case when \mathcal{A} is a subalgebra of the algebra of bounded operators on a Banach space. In particular, we establish the lower estimate $\|U_{a,b}\| \geq \|a\|\|b\|$ when the Banach space is a Hilbert space and the algebra \mathcal{A} is the algebra of all bounded linear operators.