

Nonlinear versions of the Daugavet property

Dirk Werner

Freie Universität Berlin, Germany

werner@math.fu-berlin.de

Session: 4. Banach Spaces and Operator Theory with Applications

A Banach space X has the Daugavet property if

$$\|\text{Id} + T\| = 1 + \|T\| \tag{1}$$

for all compact linear operators $T: X \rightarrow X$. Classical examples include $C[0, 1]$, $L_1[0, 1]$ and the disc algebra.

We shall discuss the validity of (1) in the setting of bilinear operators and Lipschitz operators.