

WEAK COMPACTNESS OF ALMOST LIMITED OPERATORS

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ABSTRACT

The paper is devoted to the relationship between almost limited operators and weakly compact operators. We show that if F is a 3c3 – Dedekind complete Banach lattice then, every almost limited operator $T : E \rightarrow F$ is weakly compact if and only if E is reflexive or the norm of F is order continuous. Also, we show that if E is a 3c3 -Dedekind complete Banach lattice then the square of every positive almost limited operator $T : E \rightarrow E$ is weakly compact if and only if the norm of E is order continuous