ON THE COMPLETENESS OF SOME $L^p$-SPACES OF OPERATOR-VALUED FUNCTIONS

Lutz Klotz

Abstract: In [3] there were studied Banach spaces of (equivalence classes of) functions $\Phi$ whose values are unbounded operators, in general, and which are $p$-integrable with respect to operator-valued measures having an operator density $N$ with respect to some non-negative scalar measure $\mu$. In the present short note it is shown that the values of all functions $\Phi$ are even bounded linear operators if and only if there is not any set $A$ of positive finite measure $\mu$ such that the values of $N$ on $A$ have non-closed ranges. The result is used to answer a question raised by Górniak et al. [2].

1991 AMS Mathematics Subject Classification: Primary: -; Secondary: -;

Key words and phrases: -

THE FULL TEXT IS AVAILABLE HERE