ON SOME QUOTIENT SPACES OF THE BANACH SPACE $D(0,1)$

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Abstract. We study properties of quotient spaces of the Banach space $D(0,1)$ of all scalar (real or complex) left continuous functions on $(0,1]$ with right limits equipped with the supremum norm. First we show that for every closed linear subspace X of $D(0,1)$ with separable dual the quotient space $D(0,1)/X$ possesses a sequence of continuous linear functionals separating points of the space. Next we show that if X is a Banach space containing an isomorphic copy of $D(0,1)$ and Y is a closed linear subspace of X that does not contain any isomorphic copy of $C([0,1])$, then the quotient space X/Y contains an isomorphic copy of the space $D(0,1)$.

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