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D-SYMMETRIC OPERATORS: COMMENTS AND SOME OPEN PROBLEMS

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ABSTRACT. In this paper, we show that the class of *D*-symmetric operators is norm dense in $\mathcal{L}(H)$. It is known that the direct sum of two *D*- symmetric operators are not *D*-symmetric in general. Here we will show that the direct sum of two *D*-symmetric operators is *D*-symmetric if their spectrums do not meet each other. As a consequence, we show that the set $\{T + K : T \text{ is } D$ symmetric and *K* is compact} is norm dense. Some open problems are also presented.

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