MODULUS OF QUASIDIAGONALITY

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Abstract. If $\mathrm{qd}(T)$ denotes the modulus of quasidiagonality of an operator T on a Hilbert space, it is proved that the mapping $T \rightarrow \mathrm{qd}(T)$ is uniformly continuous and T is quasidiagonal if and only if $\mathrm{qd}(T) = 0$. For any invertible operator S, an upper bound for $\mathrm{qd}(S^{-1}TS)$ is obtained. It is also proved if M is an invariant subspace of T, then

$$\mathrm{qd}(T) \leq \max\{\mathrm{qd}(T|_M), \mathrm{qd}(T|_{M^\perp})\}.$$

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