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MR0318842 (47 #7388) 46B05 (46L20 47B05) Gordon, Y.

Asymmetry and projection constants of Banach spaces.

Israel J. Math. 14 (1973), 50-62.

If (A, α) is a normed linear ideal of operators and E is an *n*-dimensional normed space, put $\alpha(E) = \alpha(I_E)$, where I_E is the identity operator on E. If $(A^{\Delta}, \alpha^{\Delta})$ is the conjugate ideal, then $n \leq \alpha(E)\alpha^{\Delta}(E) \leq \min(n(s(E))^2, 3n(\delta(E))^3)$, where s(E) is the asymmetry constant of E and $\delta(E)$ the diagonal asymmetry constant of E. A more complicated result is obtained for the unconditional asymmetry constant $\chi(E)$. It is shown that there exist finite-dimensional normed spaces with arbitrarily large diagonal asymmetry constant. It is also shown that the projection constant of a two-dimensional normed space is always less than $\sqrt{2}$.

Reviewed by D. J. H. Garling

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Citations

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