

MR0358299 (50 #10765) 46B05 (46E15)

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Projection constants of symmetric spaces. (Russian)

Mat. Zametki **15** (1974), 719–727.

Let X and Z be real Banach spaces, $\mathcal{Z}(X)$ the family of all real Banach spaces containing X as a closed subspace, and suppose that $Z \in \mathcal{Z}(X)$; let $\Pi(Z, X)$ be the set of all bounded linear projections of Z onto X . The projection constants in question are defined by $\lambda(X; Z) = \inf_{P \in \Pi(Z, X)} \|P\|$ and $\lambda(X) = \sup_{Z \in \mathcal{Z}(X)} \lambda(X; Z)$.

Author's summary: "We consider the problem of computing the absolute projection constants $\lambda(X^n)$ for n -dimensional symmetric spaces X^n . We find an integral representation for projections from a class that is sufficient for the computation of the projection constants. By means of the resulting formula we calculate the absolute projection constant of a certain Marcinkiewicz space and give a negative answer to a question raised by B. Grünbaum, concerning the asymptotic behaviour of the numbers $\lambda^n = \sup_{X^n} \lambda(X^n)$."

{English translation: *Math. Notes* **15** (1974), 430–435.}

Reviewed by *N. Tita*

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