ON THE JAMES TYPE CONSTANT AND VON NEUMANN–JORDAN CONSTANT FOR A CLASS OF BANAŚ–FRĄCZIECK TYPE SPACES

CHANGSEN YANG AND XIANGZHAO YANG

Abstract. As a generalization of Banaś-Frączieck space, the space $X_{\lambda,p}$ that denotes $\mathbb{R}^2$ endowed with the norm

$$
\|x\|_{\lambda,p} = \max\{\lambda|x_1|, \|x\|_p\}
$$

for $\lambda > 1$, $p \geq 1$ and $x = (x_1, x_2) \in \mathbb{R}^2$ is well defined. In this note, the exact value of the the James type constants $J_{X_{\lambda,p}}(1)$ and von Neumann-Jordan constant $CNJ(X_{\lambda,p})$ about this space for $p \geq 2$ are investigated.


Keywords and phrases: Jordan-von Neumann constant, modulus of convexity, Banaś-Frączieck type space, James type constant.

REFERENCES