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The best constants in the multiple Khintchine inequality. (English) Zbl 07116673
Linear Multilinear Algebra 67, No. 11, 2325-2344 (2019).

First, the authors show that the Khintchine inequality and the mixed $(\ell_{p/(p-1)}, \ell_2)$ -Littlewood inequality are equivalent, that is: one can be obtained from the other one. In this way the cotype constants $C_{2,p}$ of ℓ_p -spaces for $1 \leq p \leq 2$ are obtained. Among other results are estimates of the optimal constants in the multiple Khintchine inequality and the optimal constants of the multilinear mixed $(\ell_{p/(p-1)}, \ell_2)$ -Littlewood inequality.

Reviewer: Elhadj Dahia (Bou Saâda)

MSC:

46B09 Probabilistic methods in Banach space theory
46G25 (Spaces of) multilinear mappings, polynomials
60B11 Probability theory on linear topological spaces

Keywords:

Khintchine inequality; mixed $(\ell_{p/(p-1)}, \ell_2)$ -Littlewood inequality; multiple Khintchine inequality

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