SUMMATION OF COEFFICIENTS OF POLYNOMIALS ON ℓ_p SPACES

Verónica Dimant and Pablo Sevilla-Peris

Abstract: We investigate the summability of the coefficients of m-homogeneous polynomials and m-linear mappings defined on ℓ_p spaces. In our research we obtain results on the summability of the coefficients of m-linear mappings defined on $\ell_{p_1} \times \cdots \times \ell_{p_m}$. The first results in this respect go back to Littlewood [**17**] and Bohnenblust and Hille [**6**] for bilinear and m-linear forms on c_0, and Hardy and Littlewood [**15**] and Praciano-Pereira [**20**] for bilinear and m-linear forms on arbitrary ℓ_p spaces. Our results recover and in some case complete these old results through a general approach on vector valued m-linear mappings.