HARDY–LITTLEWOOD INEQUALITIES
FOR MULTIPOLYNOMIALS

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ABSTRACT. The notion of multipolynomials was recently introduced and explored by T. Velanga [Linear Multilinear Algebra. 66 (2018), no. 11, 2328–2348] as an attempt to encompass the theories of polynomials and multilinear operators. In the present paper, we push this subject further, by proving Hardy–Littlewood inequalities for multipolynomials and, en passant, a variant of the Kahane–Salem–Zygmund inequality in this framework.

REFERENCES

2. G. Araújo and D. Pellegrino, Optimal Hardy–Littlewood type inequalities for m-linear forms on \( \ell_p \) spaces with \( 1 \leq p \leq m \), Arch. Math. (Basel) 105 (2015), no. 3, 285–295.

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