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Title: Almost everywhere convergence of a subsequence of the logarithmic means of quadratical partial sums of double Walsh–Fourier series

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The main aim of this paper is to prove that the maximal operator of the logarithmic means of quadratical partial sums of double Walsh–Fourier series is of weak type $(1, 1)$ provided that the supremum in the maximal operator is taken over special indices. The set of Walsh polynomials is dense in $L_1(I \times I)$, so by the well-known density argument we have that $t_{2^n} f(x^1, x^2) \rightarrow f(x^1, x^2)$ a.e. for all integrable two-variable functions f .

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