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Title: Restricted summability of the multi-dimensional Cesàro means of Walsh–Kaczmarz–Fourier series

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The properties of the maximal operator of the (C, α) -means $(\alpha = (\alpha_1, \dots, \alpha_d))$ of the multi-dimensional Walsh–Kaczmarz–Fourier series are discussed, where the set of indices is inside a cone-like set. We prove that the maximal operator is bounded from dyadic Hardy space H_p^γ to Lebesgue space L_p for $p_0 < p$ ($p_0 = \max\{1/(1 + \alpha_k) : k = 1, \dots, d\}$) and is of weak type $(1, 1)$. As a corollary, we get a theorem of Simon on the a.e. convergence of cone-restricted two-dimensional Fejér means of integrable functions. In the endpoint case $p = p_0$, we show that the maximal operator $\sigma_L^{\kappa, \alpha, *}$ is not bounded from the dyadic Hardy space $H_{p_0}^\gamma$ to the Lebesgue space L_{p_0} .

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