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A Note on the Magnitude of Walsh Fourier Coefficients

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Abstract: In this note, the order of magnitude of Walsh Fourier coefficients for functions of the classes $BV^{(p)}(p \geq 1)$, ϕBV, $\Lambda BV^{(p)}$ $(p \geq 1)$ and $\phi \Lambda BV$ is studied. For the classes $BV^{(p)}$ and ϕBV, Taibleson-like technique for Walsh Fourier coefficients is developed.

However, for the classes $\Lambda BV^{(p)}$ and $\phi \Lambda BV$ this technique seems to be not working and hence classical technique is applied. In the case of ΛBV, it is also shown that the result is best possible in a certain sense.

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