

RECENT RESULTS IN SUMMABILITY OF ONE DIMENSIONAL TRIGONOMETRIC AND WALSH-FOURIER SERIES

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Let x be an element of the unit interval $I := [0, 1]$. The $\mathbb{N} \ni n$ th Walsh function is

$$\omega_n(x) := (-1)^{\sum_{k=0}^{\infty} n_k x_k} \quad \left(n = \sum_{k=0}^{\infty} k_i 2^i, \quad x = \sum_{k=0}^{\infty} \frac{x_i}{2^{i+1}} \right).$$

The sequence of the Walsh functions forms an orthonormal system over the unit interval. In this talk a résumé is given with respect to some very recent results in the theory of summation of one dimensional trigonometric and Walsh-Fourier series. From Fejér means to Cesàro summability with variable parameters. Open problems and conjectures are formulated.

REFERENCES

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