Coefficients of Some Double Trigonometric Cosine and Sine Series

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Abstract : In this paper, the results of Kano from one-dimensional cosine and sine series are extended to two-dimensional cosine and sine series. To extend these results, some classes of coefficient sequences such as the class of semi convexity and class R are extended from one dimension to two dimensions. Under these extended classes, I have checked the function f(x,y) is two dimensional Fourier Cosine and Sine series or equivalently it represents an integrable function. Further, some results are obtained which are the generalization of Moricz's results.

Keywords : conjugate dirichlet kernel, conjugate fejer kernel, fourier series, semi-convexity

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