
CONVERGENCE RESULTS OF EXPONENTIAL SAMPLING SERIES IN FUNCTION SPACES

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ABSTRACT

In this talk, we study the approximation properties (pointwise/uniform convergence) of generalized exponential sampling series in logarithmically weighted spaces of continuous functions. We then give the rate of uniform convergence in logarithmically weighted spaces with an appropriate moduli of continuity. Furthermore, we construct a quantitative representation of the pointwise asymptotic behaviour of these series using the Mellin-Taylor expansion. Finally, we present some kernel examples and numerical evaluations.

Keywords Weighted Approximation · Logarithmic modulus of continuity · Quantitative Voronovskaja-type formula

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