Weighted Approximation for the Families of Sampling Operators

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In this work, we present an extension of approximation behaviours of generalized sampling series and the convergence of so-called sampling Kantorovich operators for functions in weighted spaces. In the first frame we prove a point wise and uniform convergence for the operators. And a rate of convergence by means of weighted modulus of continuity is established, a Voronovskaja type theorem is also obtained. In the second frame we prove quantitative estimates for the rate of convergence of the above mentioned operators. Lastly, point-wise convergence results in quantitative form by means of Voronovskaja type theorems have been given for both operators.

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