

CONVERGENCE OF GENERALIZED SINGULAR INTEGRALS TO THE UNIT, UNIVARIATE CASE

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Abstract. In a recent paper, the second author (see [2]) studied the degree of uniform approximation to the unit in terms of uniform moduli of smoothness, by the Jackson-type generalizations of Picard and of Gauss-Weierstrass singular integrals. In this paper we consider the L^p -approximation, ($1 \leq p < +\infty$) by the above singular integrals in terms of the L^p -moduli of smoothness, and both uniform and L^p -approximation (in terms of the corresponding moduli of smoothness) by Jackson-type generalizations of the Poisson-Cauchy singular integrals.

Mathematics subject classification (1991): 41A17, 41A25, 41A35.

Key words and phrases: generalized singular integrals, convergence to the unit with rates, moduli of smoothness.

REFERENCES

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