ONE-SIDED INTEGRAL APPROXIMATION OF THE CHARACTERISTIC FUNCTION OF AN INTERVAL BY ALGEBRAIC POLYNOMIALS

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We give a solution to the problem of one-sided approximation in $L(-1,1)$ of the characteristic function of the interval $(-\sqrt{3/5}, 2/5)$ by fifth-degree algebraic polynomials. The corresponding quadrature formula with positive weights is constructed.

Keywords: algebraic polynomials, one-sided approximation, characteristic function of an interval.

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