

DOI: 10.21538/0134-4889-2016-22-3-265-272

MSC: 41A10, 41A29

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

Received April 29, 2016

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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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Cite this article as:

A. Yu. Torgashova, One-sided integral approximation of the characteristic function of an interval by algebraic polynomials, *Trudy Inst. Mat. Mekh. UrO RAN*, 2016, vol. 22, no. 3, pp. 265–272 .