

# Rational approximation on closed curves

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## Abstract

A problem an approximation of classes of function determined only on the boundary of domain takes important place simultaneously with studying approximation by means of polynomials analytic in the domain  $G$  and with some conditions on the boundary  $\Gamma$  of functions.

Obviously, generally speaking, it is impossible to approximate such classes of function by means of polynomials. Therefore, in this case, usually different forms of rational functions or so called generalized polynomials are used as approximation aggregate. My followers D.Israfilov, I.Botchaev and me studied problems on approximation of function determined only on the boundary of domain by means of rational functions of the form  $R_n(z) = P_n(z, \frac{1}{z})$ .

In the given report, we consider a rational function of the form  $R_n(z) = P_n(z, \bar{z})$  as an approximate aggregate. For this case, analogies of Jackson's direct theorems on closed curves of complex plane are proved.

## References

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