

23(7)

Approximation Properties of Julia Polynomials

Daniyal M. ISRAFILOV, Burcin OKTAY

Department of Mathematics, Faculty of Art and Science, Department of Mathematics, Faculty of Art and Science

收稿日期 2005-1-19 修回日期 网络版发布日期 2007-5-21 接受日期 2005-5-19

摘要

关键词 [conformal mapping](#) [extremal polynomials](#) [bounded boundary rotation](#) [Dini-smooth boundary](#)

分类号 [30E10](#)

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Abstract Let G be a finite simply connected domain in the complex plane \mathbb{C} , bounded by a rectifiable Jordan curve L , and let $w = \varphi_{0}(z)$ be the Riemann conformal mapping of G onto $D = \{z \in \mathbb{C} : |z| < 1\}$, normalized by the conditions $\varphi_{0}(z_{0}) = 0, \varphi_{0}'(z_{0}) = 1$. In this work, the rate of approximation of φ_{0} by the polynomials, defined with the help of the solutions of some extremal problem, in a closed domain \overline{G} is studied. This rate depends on the geometric properties of the boundary L .

Key words [conformal mapping](#) [extremal polynomials](#) [bounded boundary rotation](#) [Dini-smooth boundary](#)

DOI: 10.1007/s10114-005-0730-2

通讯作者 Daniyal M. Israfilov mdaniyal@balikesir.edu.tr, misrafilov@yahoo.com

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