

Russian Mathematics 2012 vol.56 N4, pages 9-18

The szegő function on a non-rectifiable arc

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Abstract

Let γ be a simple Jordan arc in the complex plane. The Szegő function, by definition, is a holomorphic in $C \setminus \gamma$ function with a prescribed product of its boundary values on γ . The problem of finding the Segö function in the case of piecewise smooth γ was solved earlier. In this paper we study this problem for non-rectifiable arcs. The solution relies on properties of the Cauchy transform of certain distributions with the support on γ . © Allerton Press, Inc., 2012.

<http://dx.doi.org/10.3103/S1066369X12040020>

Keywords

Cauchy transform, Distribution, Non-rectifiable arc, Riemann boundary-value problem, Szegő function