

Mityushev, Vladimir

Solution of the Hilbert boundary value problem for a multiply connected domain. (English)

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Stupskie Pr. Mat.-Przyr. 9a, 37-69 (1994).

Let $D =$

$\mathbb{C} \setminus \bigcup_{k=0}^n \overline{D}_k$, where D_k are mutually disjoint circles. The author considers, in the Hölder space the following problem: Find a function $\Phi(z)$ analytic in D , satisfying on ∂D_k the boundary conditions $\operatorname{Re}\{\lambda_k \Phi\} = f_k$, $k = 0, 1, \dots, n$, where λ_k, f_k are given functions. In the special case, the solution of the problem are given in explicit form.

Reviewer: [Z.Binderman \(Warszawa\)](#)

MSC:

[30E25](#) Boundary value problems in the complex plane

[45E05](#) Integral equations with kernels of Cauchy type

Cited in **5** Documents