

**OPTIMAL RECOVERY OF AN ANALYTIC FUNCTION IN A DOUBLY
CONNECTED DOMAIN FROM ITS APPROXIMATELY GIVEN BOUNDARY
VALUES**

R. R. Akopyan

Received February 15, 2015

We study the problem of optimal recovery of a function analytic in a doubly connected domain from its approximately given values on one of the two components of the boundary. An optimal recovery method is obtained in the case when the error is an integer power of the modulus of the domain.

Keywords: optimal recovery, analytic functions, doubly connected domain.

R. R. Akopyan Cand. Phys.-Math. Sci., Krasovskii Institute of Mathematics and Mechanics, Ural Branch of the Russian Academy of Sciences, Yekaterinburg, 620990 Russia; Institute of Mathematics and Computer Science, Ural Federal University, Yekaterinburg, 620002 Russia, e-mail: RRAkopyan@mephi.ru.

Cite this article as:

R. R. Akopyan, Optimal recovery of an analytic function in a doubly connected domain from its approximately given boundary values, *Tr. Inst. Mat. Mekh. UrO RAN*, 2015, vol. 21, no. 4, pp. 14–19.