ON SOLVING OF DIRICHLET PLANE EXTERNAL PROBLEM FOR THE LAPLACE EQUATION BY THE MODIFIED VERSION OF MFS

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Abstract

A modified system of fundamental solutions of the Laplace operator is constructed in the plane case. Based on this system, the method of an approximate solution of Dirichlet plane external boundary value problem is developed. Numerical examples are considered to illustrate high accuracy and simplicity of the method.

Key words and phrases: External Dirichlet problem, Laplace equation, method of fundamental solutions (MFS), modified version of the method of fundamental solutions.

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