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ON ONE BOUNDARY PROBLEM FOR THE 6th ORDER
POLYHARMONIC EQUATIONS

Abstract

The article is dedicated to the solution of one of the main boundary value problems for a polyharmonic equation of the 6-th order, taken in two dimensional space. The solution of the given problem is found as the sum of three potentials. The bound formulas are proved for these potentials and their derivatives. Using these formulas the solution of the boundary problem is reduced to the solution of series of Fredholm type integral equations.