

LA. KOVALEVA

SOLVABILITY OF THE DIRICHLET PROBLEM ON A TWO-DIMENSIONAL COMPLEX

(),

The article deals with the Dirichlet problem for harmonic functions on a two-dimensional network (complex) consisting of plane convex polygons. The solvability of the problem in Helder spaces with weight was proved, the index value in the corresponding spaces was found. The power-logarithmic asymptotics of the solution near the vertices of the complex is obtained.

Keywords: Dirichlet problem, two-dimensional network, Helder spaces, asymptotics of the solution.

R M
 $M,$ $L,$ $F,$ K
 Mg $M,$ $R,$ L G L
 K M G M
 L L L L
 M_L $L,$ $L,$ L
 K \in R L G $L,$ R
 F U K
 K^2 L
 L_D $L_H,$ KD^1 KH^1
 F_D L G $L_D,$
 $F_H = F \setminus F_D$ LGL $L_H,$
 $[1],$ $u(x)$ G $C(K,F)$ K UK_H
 M ML
 L
 $d\nu$
 $M,$ $:$
 \wedge $gM_{L \setminus L} = 0.$ 21
 (D) $K \cup K_H$
 $u \in G C(K \setminus F)$
 $\wedge \setminus Kh = /,$ (1)

