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ON SOME BOUNDARY PROBLEMS OF HOLOMORPHIC FUNCTIONS THEORY AND THEIR APPLICATION TO THEORY OF ELASTICITY

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Some boundary problems of holomorphic function theory for circular ring and circle with cuts (Riemann – Gilbert problem for multiply connected domain among them) are studied.

It is ment that mentioned cuts are placed along the linear segments and circle arcs on symmetric lines of considered domains.

The solutions are constructed effectively and are expressed by Cauchy – type integrals.

It is evident that by use of conformal mapping the number of considered domains sufficiently increases.

Results obtained are applied to torsion problems for prismatic bars composed from different materials.