

On solutions of Saint-Venant's problem for elastic dipolar bodies with voids

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ABSTRACT.

This study is dedicated to the Saint-Venant's problem in the context of the theory of porous dipolar bodies. We consider a right cylinder consisting of an inhomogeneous and anisotropic material. In the equilibrium equations of this problem, the axial variable is regarded as a parameter. The main result describes a class of semi-inverse solutions to the Saint-Venant's problem in terms of some generalized plane strain problems.

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