

**G. Khatiashvili**

**N. Muskhelishvili Institute of Computational Mathematics,  
Georgian Academy of Sciences  
Tbilisi, Georgia**

**SAINT-VENANT'S PROBLEMS FOR COMPOSED BODIES  
BOUNDED BY ELLIPTIC SURFACES**

In this paper the problems indicated in the title for homogeneous, two-layered isotropic elliptic tube and for composed isotropic elliptic tube with anisotropic kernel are solved with help of Faber's polynomials.

Although analytical solutions of Saint-Venants (S-V) problems for cylindrical (prismatic) bodies with several crosssections already exist, it will be interesting to consider (S-V) problems for the elliptic tubes, from a solution of which, as particular case, a crack's problem may be investigated for a body by an elliptic crosssection with a split along a focal length. It should be noted that, although Faber's polynomials are determined for simply connected domains (in particular for an elliptic domain) they turned out to be applicable also to an elliptic ring.