

# Application of the method of asymptotic expansions for analyzing free-convection jet flows

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From the viewpoint of the laminar boundary layer theory, by the method of internal and external asymptotic expansions the self-similar problem on the development of a plane free-convective jet at a quadratic temperature dependence of the density has been solved. Analytical dependences of the main characteristics of the jet flow on the Prandtl number, convenient for engineering calculations, have been obtained.

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