

## **Upper estimates of airfoil aerodynamic characteristics for a viscous incompressible flow**

Elizarov A., Fokin D.

*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

---

### **Abstract**

In the present work the method of the inverse boundary-value problems is used to obtain upper estimates for two main integral airfoil characteristics: lift coefficient  $C_l$  and the aerodynamic ratio  $K$  in a certain class of airfoils flown by an incompressible flow of viscous fluid at a fixed angle of attack at high Reynolds number ( $10^6$ - $10^7$ ) with the presence of a thin non-separating turbulent boundary layer.

---