

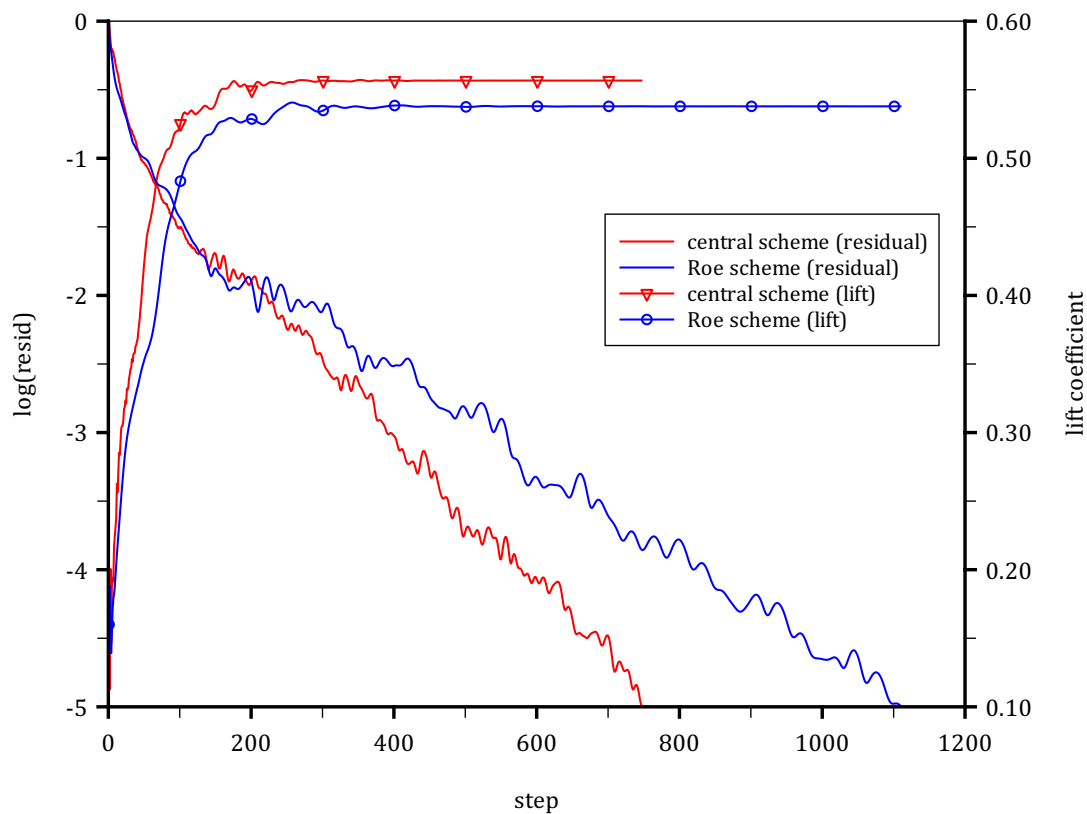
## Solution of 2-D Euler Equations: RG 15A-1.8/11.0 Airfoil

Spatial discretization schemes:

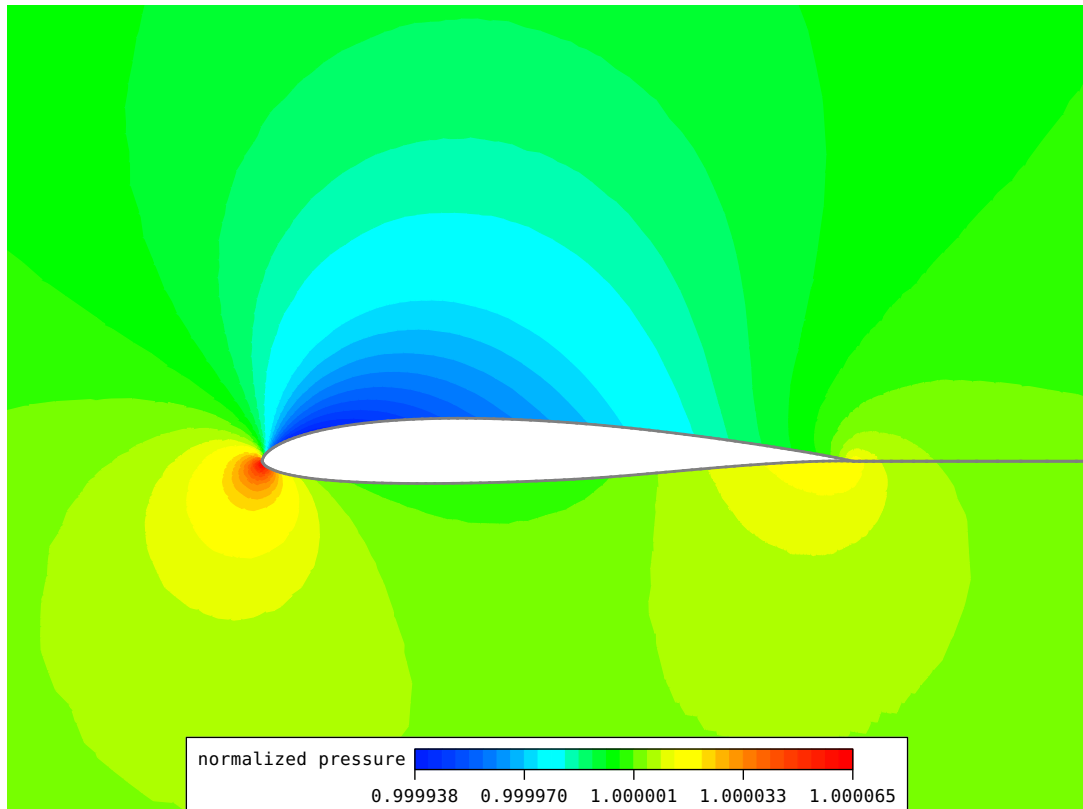
- Central scheme with scalar artificial dissipation:  
 $\sigma = 7.5, \varepsilon = 0.8, k^{(2)} = 0.0, k^{(4)} = 1/256$ , preconditioning parameter = 0.5
- Roe's upwind scheme:  
 $\sigma = 5.0, \varepsilon = 1.0, K = 100$ , preconditioning parameter = 0.5

Boundary conditions:

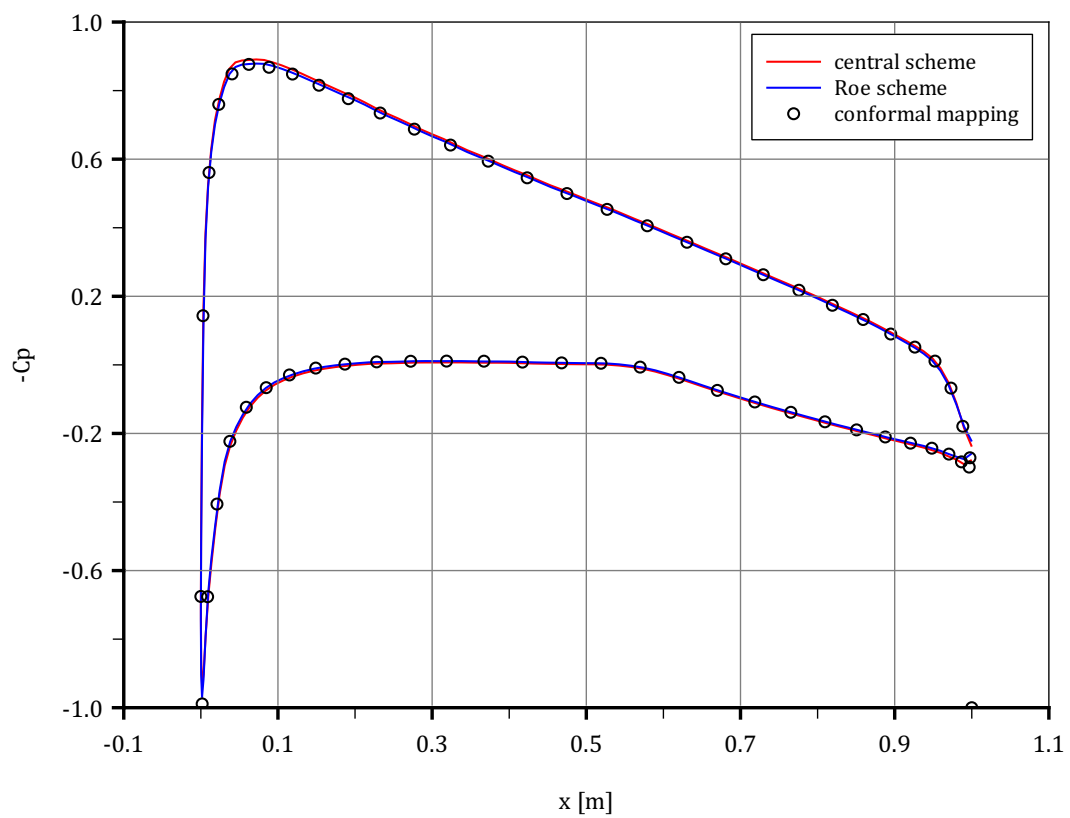
$M_\infty = 0.01, \alpha = 2^\circ, p_\infty = 1.0 \cdot 10^5 \text{ Pa}, T_\infty = 288.0 \text{ K}.$



Convergence history.



Pressure distribution around the airfoil (central scheme).



Pressure coefficient over the chord length.