

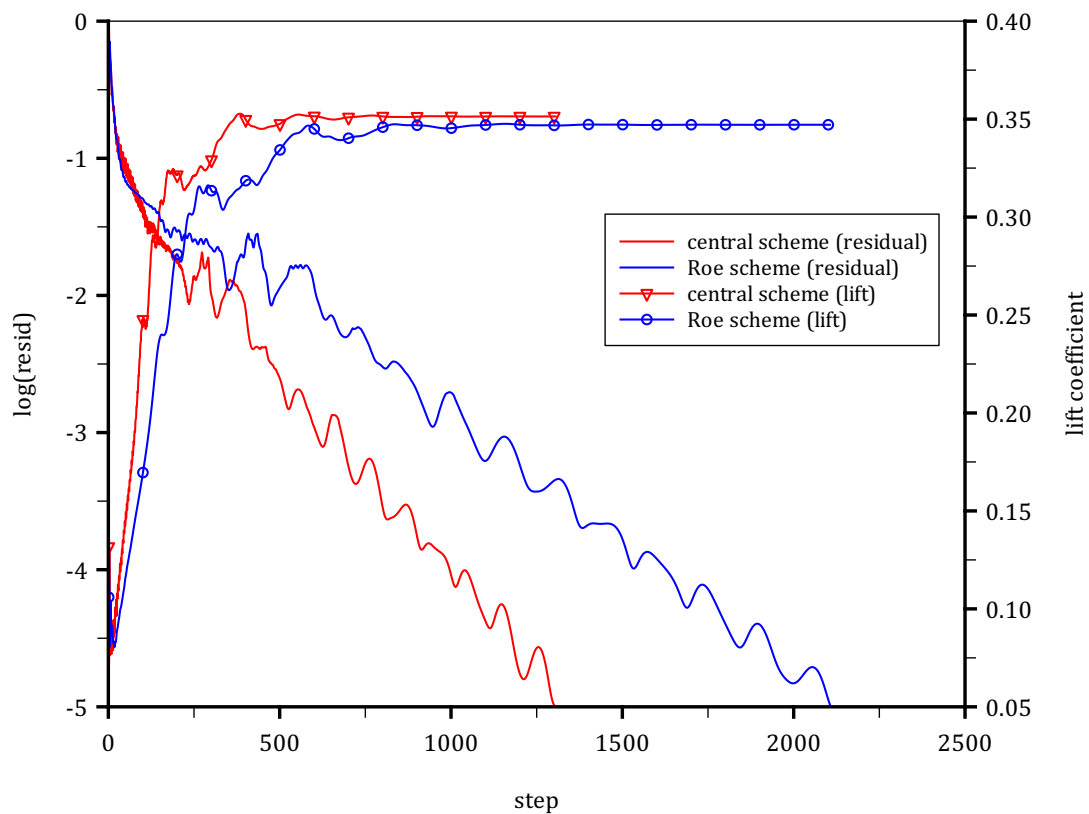
## Solution of 2-D Euler Equations: NACA 0012 Airfoil

Spatial discretization schemes:

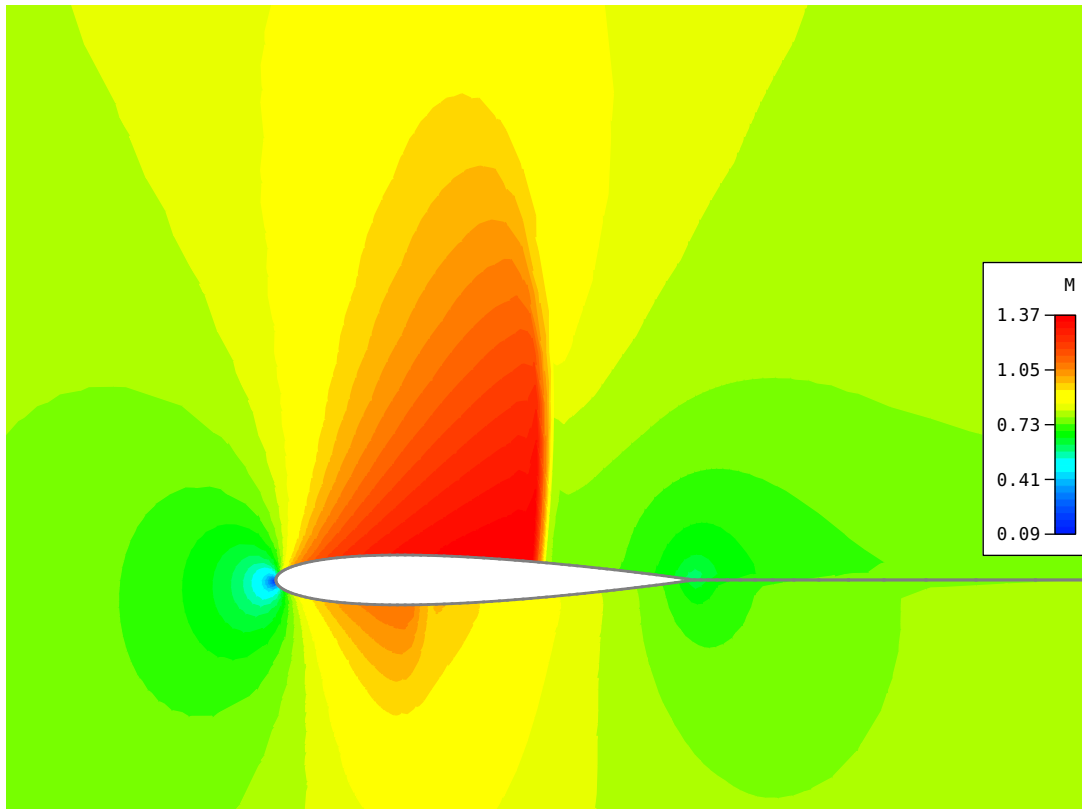
- Central scheme with scalar artificial dissipation:  
 $\sigma = 7.5, \varepsilon = 0.8, k^{(2)} = 0.5, k^{(4)} = 1/128$
- Roe's upwind scheme:  
 $\sigma = 5.0, \varepsilon = 1.2, K = 30$

Boundary conditions:

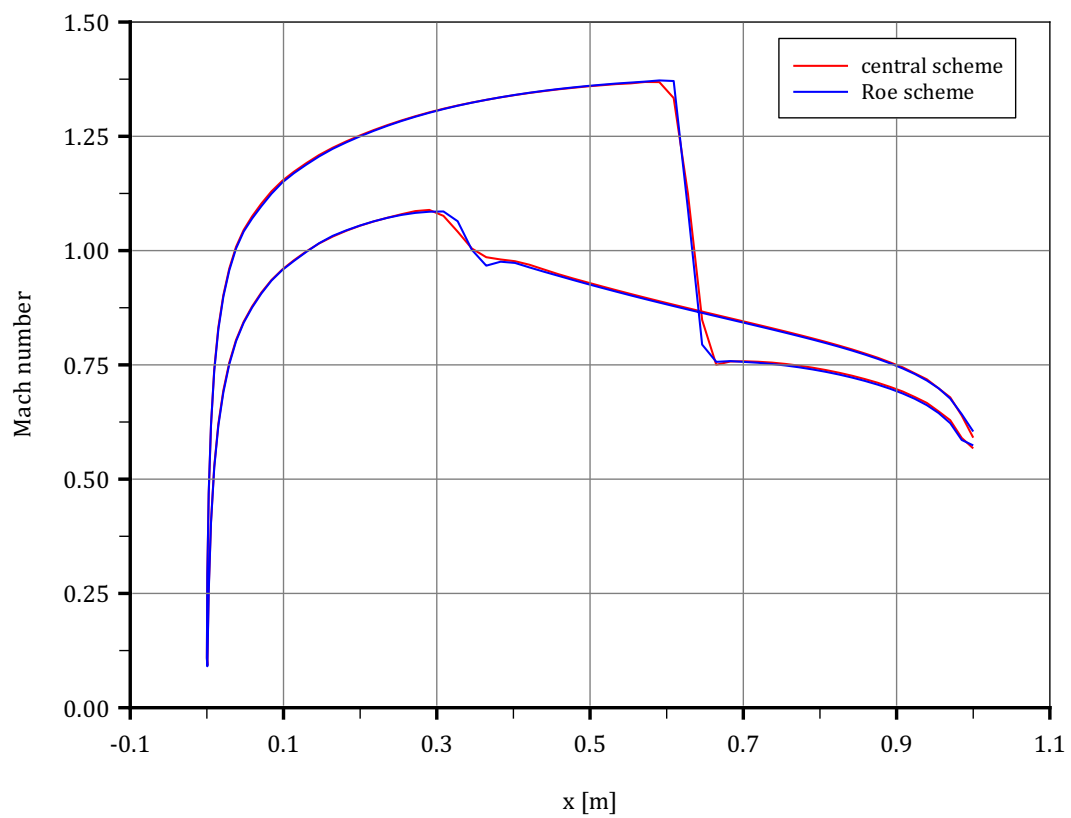
$M_\infty = 0.8, \alpha = 1.25^\circ, p_\infty = 1.0 \cdot 10^5 \text{ Pa}, T_\infty = 288.0 \text{ K}.$



Convergence history.



Mach number distribution around the airfoil (Roe scheme).



Mach number over the chord length.