

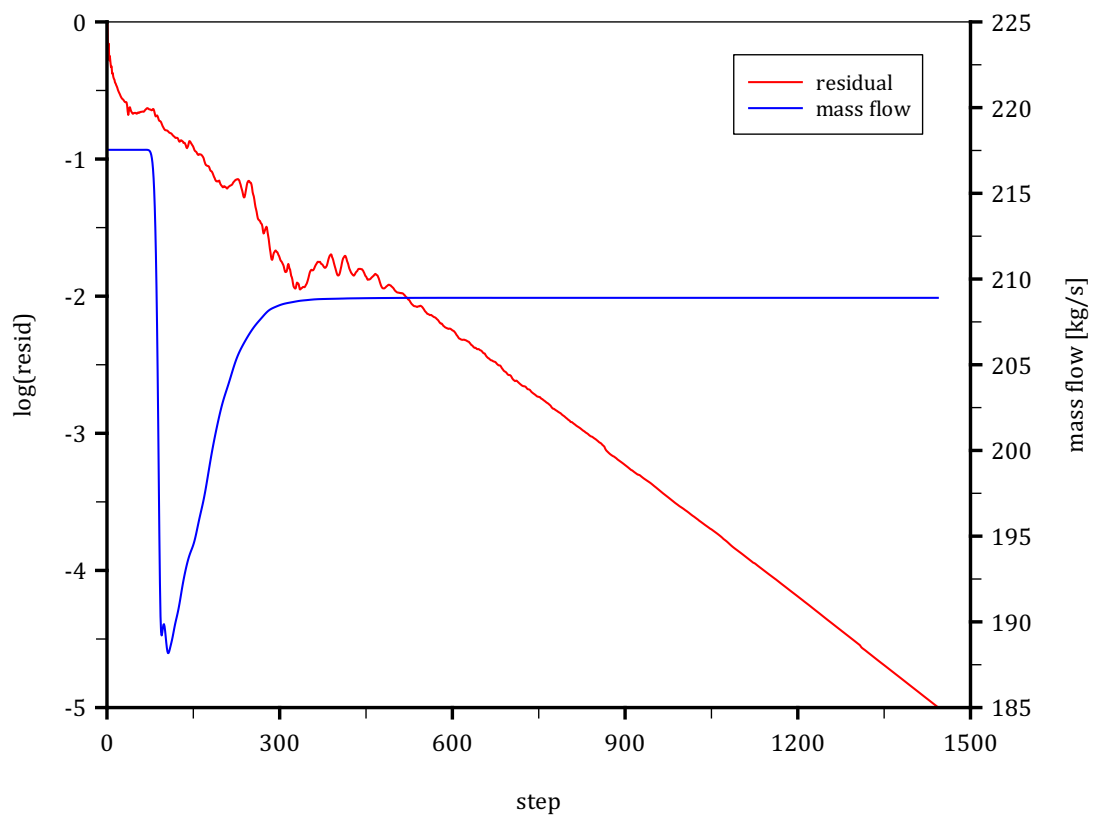
Solution of 2-D Euler Equations: Channel with Circular Bump

Spatial discretization by Roe's upwind scheme:

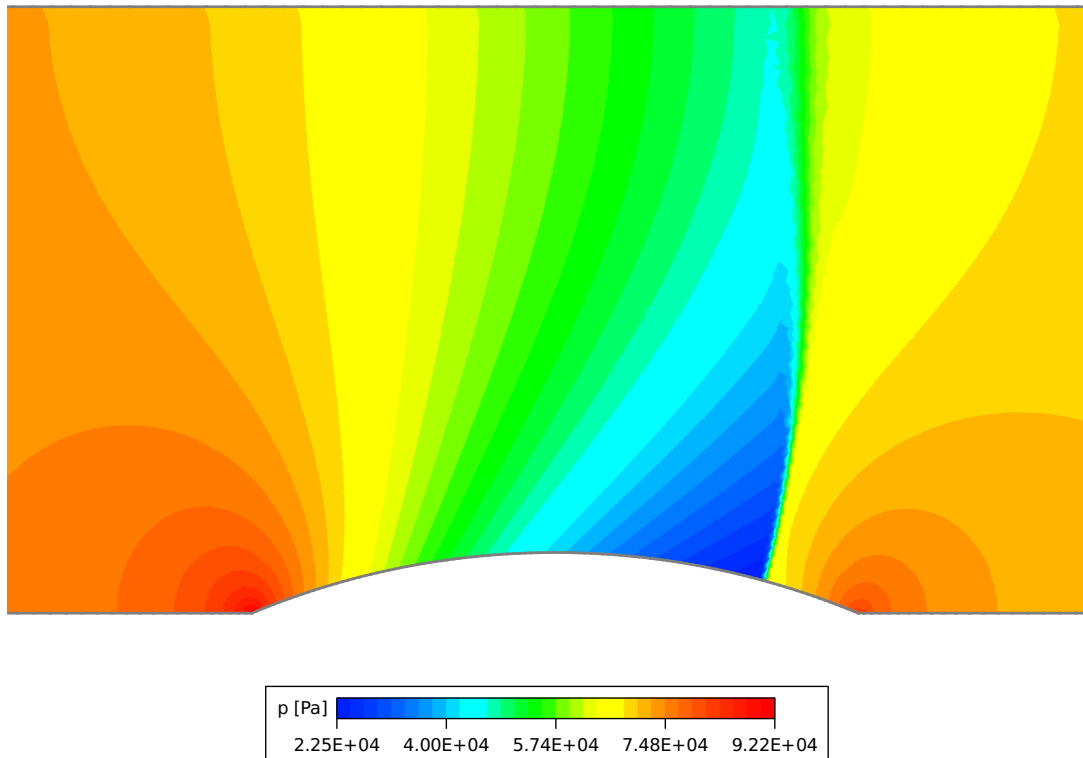
$$\sigma = 5.5, \varepsilon = 0.4, K = 0.1$$

Boundary conditions:

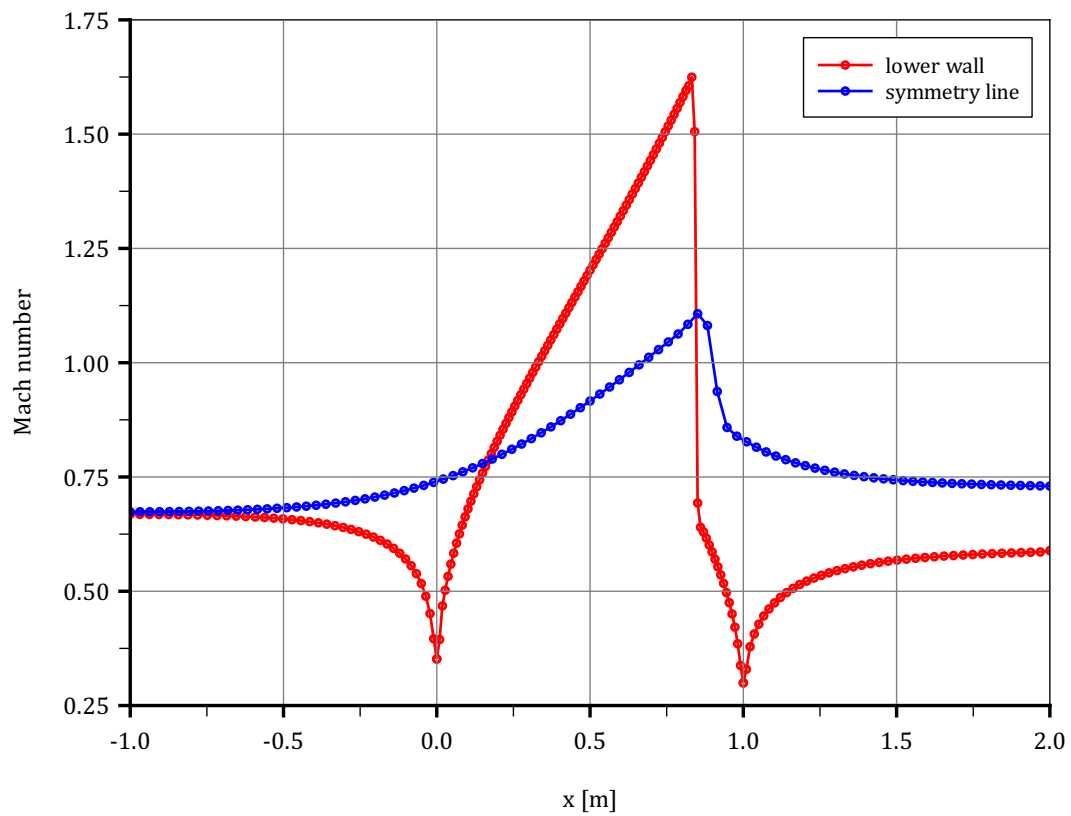
$$p_{t,inl} = 1.0 \cdot 10^5 \text{ Pa}, T_{t,inl} = 300.0 \text{ K}, p_{out} = 7.0 \cdot 10^4 \text{ Pa}.$$



Convergence history.



Detail of pressure distribution inside the channel.



Mach number over channel length.