

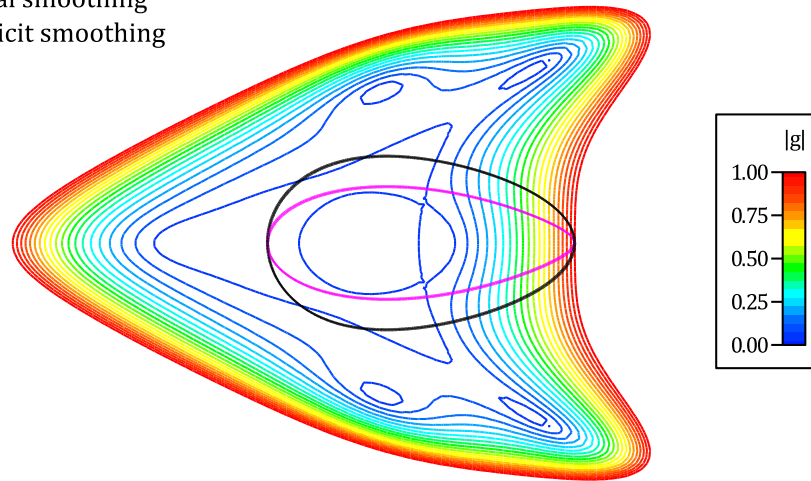
Explicit (5,3)-scheme, convection-diffusion equation

Base scheme: 2nd-order upwind spatial discretization, $\sigma = 1.0$, $\Lambda_v/\Lambda = 2.0$.

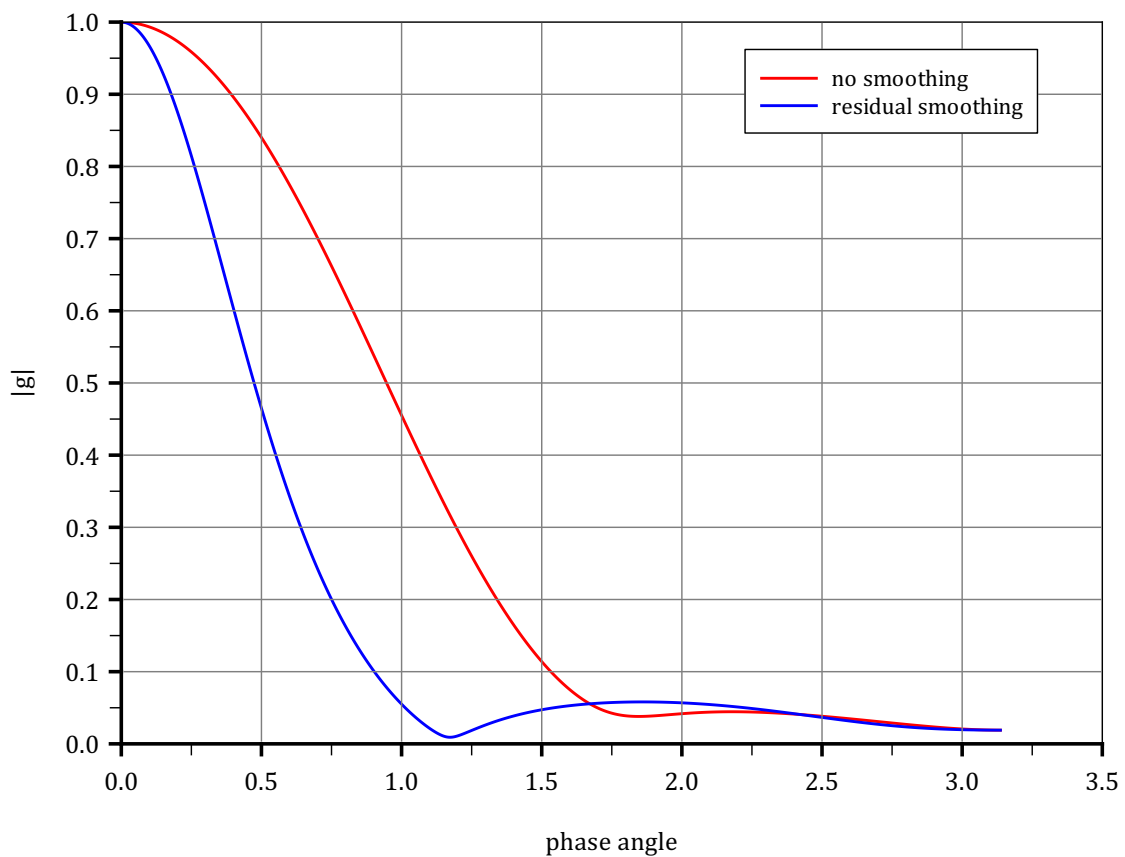
Scheme with central residual smoothing: $\sigma = 5.0$, $\varepsilon = 1.0$.

Fourier symbol:

- no residual smoothing
- with implicit smoothing



Fourier symbol z of the spatial operator and contours of the magnitude of the amplification factor $|g|$.



Magnitude of the amplification factor $|g|$ over the phase angle φ .