

## Stabilized FEM and related difference schemes

Hans-Görg Roos<sup>1</sup>

Recently developed stabilization methods for convection-diffusion problems as the continuous interior penalty method or local projection stabilization generate (in 1D) five-point difference schemes. It is extremely useful to compare the schemes generated by different methods.

First we review well known properties of four- and five-point difference schemes and its stability properties. Moreover, we discuss in detail the crucial question to determine the stabilization parameters in such a way that the error of the method behaves nice even if layers exist.

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<sup>1</sup>TU Dresden, Germany,  
Hans-Goerg.Roos@tu-dresden.de