

# On the definition of the SUPG parameter

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The SUPG method is one of the most popular finite element approaches for the numerical solution of convection dominated problems. However, the quality of the approximate solution strongly depends on the definition of a stabilization parameter. The aim of this talk is to propose a new definition of this parameter and to demonstrate that it significantly reduces spurious oscillations in the approximate solution. As a model problem we shall consider a two-dimensional steady scalar convection-diffusion equation.

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