



Oberseminar Mathematische Strömungsmechanik

Institut für Mathematik der Julius-Maximilians-Universität Würzburg

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Continuous Galerkin method for hyperbolic partial differential equations

Abstract:

Continuous Galerkin methods use a continuous representation of the solution using piecewise polynomials. They can suffer from too much dispersion errors when applied to wave-type problems especially when the solution has steep gradients or is not very well resolved. Some form of stabilization is usually used to make these methods less prone to such errors. Here we explore ideas from summation-by-parts, split-form schemes and gradient jump penalty to construct useful schemes for scalar problems.

This talk will be accessible to non-specialists.

room 40.03.003 (Emil Fischer Str. 40)

Thursday, May. 15, 2025 at 12:30 pm

Zu diesem Vortrag sind Sie herzlich eingeladen.

gez. Christian Klingenberg