



Oberseminar Mathematische Strömungsmechanik

Institut für Mathematik der Julius-Maximilians-Universität Würzburg

Hyperbolic equations - structure preserving methods & other topics

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Some new perspectives on developing asymptotic preserving schemes for kinetic equations

Abstract:

In this talk, I will introduce two new approaches for constructing asymptotic preserving schemes for kinetic equations using variational formulations. One invokes the power of neural networks, and we show uniform stability in the sense that the numerical error can be controlled by the loss function of the neural networks. The other is based on a minimizing movement scheme, which takes the advantage of the versatile optimization toolbox. In this case, we discuss the uniform convergence rate with respect to the scaling parameters.

via Zoom video conference (request the Zoom link from klingen@mathematik.uni-wuerzburg.de)

Friday, Mar. 18 at 3 pm CET

Zu diesem Vortrag sind Sie herzlich eingeladen.

gez. Christian Klingenberg