Oberseminar Numerik

Dr. Yuhuan Yuan
(Nanjing University, China)

04.04.24
10:00 Uhr
Hilbertraum (05-432)
Staudingerweg 9, 55128 Mainz

„Error estimates of a finite volume method for the compressible Navier--Stokes--Fourier system"

Abstract:

In this talk we study the convergence rate of a finite volume approximation for a smooth problem of the compressible Navier-Stokes-Fourier system. To this end we make a physically reasonable assumption that the numerical density and temperature are uniformly bounded from above and below. Then the strong solution is proven to be global-in-time. Applying an elegant tool, so-called relative energy, we derive a priori error estimates between finite volume solutions and the strong solution.

Hierzu sind alle herzlich eingeladen.

AG Numerik
Institut für Mathematik
Staudingerweg 9
55128 Mainz

Sekretariat:
burkertb@mathematik.uni-mainz.de

JOHANNES GUTENBERG UNIVERSITÄT MAINZ

JG|U