Institut für Angewandte Analysis
Universität Ulm
89069 Ulm

Prof. Dr. Wolfgang Arendt
Prof. Dr. André Schlichting
Prof. Dr. Anna Dall'Acqua
Prof. Dr. Rico Zacher

Oberseminar im Institut für Angewandte Analysis

Sommersemester 2025

Im Rahmen des Oberseminars spricht am Montag, den **28. April 2025**:

Sebastian Throm

Umeå universitet

Self-similarity for the inelastic Boltzmann equation with moderately hard potentials

Self-similarity for the inelastic Boltzmann equation with moderately hard potentials

Inelastic interaction in granular media is a frequent phenomenon in many applications which, on the microscopic level, is characterised by dissipation of kinetic energy. A common model to describe such systems is given by the inelastic Boltzmann equation.

In this talk, we will consider a one dimensional version of this model and the occurrence of self-similarity in the long-time limit. More precisely, we study the uniqueness of corresponding self-similar profiles in the regime of moderately hard potentials. The proof relies on a perturbation argument from the Maxwell model together with corresponding regularity estimates and a detailed analysis of the linearised equation.

Der Vortrag findet in **Raum E60, Helmholtzstr. 18** statt.
Beginn: 16 Uhr (s.t.). Alle Interessierten sind herzlich eingeladen.

W. Arendt, A. Dall'Acqua, A. Schlichting, R. Zacher.