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GASTVORTRAG

Die Arbeitsgruppe Numerical Analysis lädt zu folgendem Vortrag ein:

Alfio Borzi
Wissenschaftliches Rechnen,
Universität Würzburg

Applications of Optimal Control to Kinetic Models

Kinetic models like the Liouville and the Boltzmann equations provide a mesoscopic description that bridges microscopic phenomena (like individual molecular collisions) and macroscopic behavior (like fluid flow) by describing statistical distributions of particles over time and space. These models are of fundamental importance in many application fields ranging from plasma physics to the engineering of hypersonic rockets.

In this talk, we outline applications of optimal control theory, in particular in the framework of ensemble optimal control and Monte Carlo simulation techniques. We illustrate optimal control strategies for determining open- and closed-loop controls of kinetic models with collision and for plasma cooling and design of equilibrium states for the Vlasov-Poisson equation.

Zeit: **Dienstag, 03. Februar 2026 um 16.00 Uhr**

Ort: **Technikerstr. 13, EG, HSB 6**

Gäste sind herzlich willkommen!

Lukas Einkemmer