



# Einladung zum Oberseminar Dynamische Systeme und Kontrolltheorie

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### Computer-assisted proofs in dynamics

The talk will be an introduction to computer-assisted proofs in dynamics. I will start by describing interval arithmetic and compare it with the standard floating-point arithmetic. Then we will discuss the rigorous numerical methods and their applications. Mainly, I will focus on the rigorous methods for solving ODEs. Then, I will tell you about rigorous numerical for dissipative partial differential equations. With the use of these techniques, we have proven the existence of periodic orbit for Brusselator system with diffusion and Chafee-Infante equation, which are the main results of my PhD dissertation.

Ort: Mathematik Ost, Seminarraum 01.003

Zeit: Freitag, 10.05.2024 14:00

Zu diesem Vortrag laden wir Sie herzlich ein.

*gez. Sergey Dashkovskiy*