



# Einladung zum Oberseminar Dynamische Systeme und Kontrolltheorie

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### **Prescribed-Time Distributed Safety Control under Multiple Constraints and Local Feasibility Conditions**

This talk presents my recent research on prescribed-time safety control for multi-agent systems subject to multiple constraints. The objective is to ensure that agents enter a desired safe set within a prescribed time while satisfying obstacle avoidance, collision avoidance, and control input constraints. To achieve this, a continuous lower-bound-based control barrier function is developed and incorporated into a distributed CBF-CLF quadratic programming framework. A local feasibility condition is also established to characterize the compatibility of the prescribed-time safety requirement with other safety constraints. The theoretical results are illustrated through numerical simulations involving multiple agents and densely distributed obstacles.

Ort: Mathematik Ost, Seminarraum 01.003

Zeit: Freitag, 13.11.2026 14:15

Zu diesem Vortrag laden wir Sie herzlich ein.

*gez. Sergey Dashkovskiy*