

Einladung

zum

Mathematischen Kolloquium

Am Donnerstag, dem 20. April 2023, spricht

Herr Dr. habil. Andrii Mironchenko,
Universität Passau
Lehrstuhl für Dynamische Systeme
Gast am Lehrstuhl für Angewandte Mathematik
bei Herrn Prof. Dr. Lars Grüne

über das Thema

*Lyapunov method for robust stability of infinite-dimensional systems:
Recent developments and open problems*

Abstract

We start with a short recap of classical Lyapunov characterizations of the asymptotic stability of nonlinear infinite-dimensional systems.

Next, we argue that for many system classes existence of a less restrictive type of Lyapunov functions, so-called non-coercive Lyapunov functions, is sufficient to ensure the asymptotic stability of a dynamical system.

Finally, we consider the infinite-dimensional systems with inputs (boundary control systems) and show how coercive and non-coercive Lyapunov functions can be used to analyse the robust stability of such systems.

We close the talk with some open problems in the Lyapunov theory for systems with inputs.

Beginn: 16.30 Uhr (Kaffee/Tee ab 16.00 Uhr im Seminarraum 748)

Ort: Hörsaal H 19, Gebäude Naturwissenschaften II, Universitätsgelände

gez. J. Rambau