



Einladung zum Oberseminar Numerische Analysis

Am Montag, 24.11.2025 um 14:00 s.t. Uhr, im Seminarraum 2 (Raum 204) der
Abteilung Mathematik, Weyertal 86 - 90, 50931 Köln,
spricht

Prof. Dr. Jonas Lührmann
(Universität zu Köln)

zum Thema

Asymptotic stability of solitons in lower dimensions

Abstract

Many wave phenomena in nature, from water waves to light pulses in optical fibers, can be described by nonlinear dispersive equations. Among their solutions, solitons are particularly remarkable: they are localized waves that retain their shape as they travel, behaving almost like particles despite being waves.

In this talk, I will explain what solitons are and why they are important for understanding the long-time behavior of nonlinear dispersive equations. I will also discuss recent progress on the question of the asymptotic stability of solitons in lower-dimensional settings, specifically for so-called kinks and vortices, where the strong interactions between solitons and dispersive waves lead to especially rich dynamics.

Interessenten sind herzlich eingeladen.

Angela Kunothe