



Lehrstuhl für Analysis und Modellierung

**Lehrstuhl-Seminar
Wintersemester
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Spectral stability and singular perturbation

26. November 2020 - 10:30
WebEx Meeting

Abstract: In the class of reaction-diffusion PDE, one can often find front-like solution, that can be seen as equilibrium from a dynamical point of view.

For the simple FKPP equation, the behavior of solutions near those equilibriums are well understood. I will present the situation for a singularly perturbed version of this equation.

In this setting, we will describe precisely the spectrum of the linear dynamic by perturbation arguments. For this, we will precondition and use a Lyapunov-Schmidt reduction to rule out the unstable point spectrum.