



Mathematisches Kolloquium

Am Freitag, dem 16. November 2018 spricht um 14 Uhr c. t. im Hörsaal IV
der Fachrichtung Mathematik (Gebäude E24)

Prof. Dr. Mariana Haragus
Université de Franche-Comté, Besançon

über das Thema:

A mathematical analysis of Kerr frequency combs modeled by the Lugiato-Lefever equation

Abstract: The Lugiato-Lefever equation is a nonlinear Schrödinger-type equation with damping, detuning and driving, derived in nonlinear optics by Lugiato and Lefever (1987). While intensively studied in the physics literature, there are relatively few rigorous mathematical studies of this equation. Of particular interest for the physical problem is the formation and the dynamical behavior of Kerr frequency combs (optical signals consisting of a super-position of modes with equally spaced frequencies). The underlying mathematical questions concern the existence and the stability of certain particular steady solutions of the Lugiato-Lefever equation. In this talk, I'll focus on periodic steady waves for which I'll show how tools from bifurcation theory can be used to study their existence and stability..

Der Gast wird von Prof. Dr. Mark Groves betreut.

Alle Interessenten sind zum Vortrag herzlich eingeladen.

Kaffee und Tee ab 13.45 Uhr im Didaktiklabor der Mathematik (Erdgeschoss, Raum 114)

Die Dozenten der Mathematik