Mathematisches Kolloquium

Am Freitag, dem 18. Oktober 2013 spricht um 14 Uhr c.t. im Hörsaal IV
der Fachrichtung Mathematik (Gebäude E2 4)

Prof. Dr. Arnd Scheel
University of Minnesota

über das Thema:

Patterns in the wake of fronts

Abstract: This talk will explore patterns created in the wake of propagating fronts. The first
part will show several examples, ranging from classical Liesegang patterns in chemical precipi-
tation, over bacterial colony patterns, to nanodots created through surface instabilities. I will
emphasize a common feature in these examples: the role of coherent invasion fronts (more com-
monly known in ecology) as a central building block in the description and prediction of the
observed patterns. The second part will focus on the existence of invasion fronts in a particular
example, the Cahn-Hilliard equation. I will in particular motivate the key ingredients to the
existence proof: methods from dynamical systems, partial differential equations, and algebraic
topology, notably Conley's index.

Der Gast wird von Prof. Groves betreut.

Alle Interessenten sind zum Vortrag herzlich eingeladen.

Kaffee ab 13.45 Uhr im Konferenzraum der Mathematik   (Erdgeschoss, Raum 1.03)

Die Dozenten der Mathematik