



Mathematisches Kolloquium

Am Freitag, den 11. Mai 2012 spricht um 14 Uhr c.t. im Hörsaal IV
der Fachrichtung Mathematik (Gebäude E24)

Prof. Dr. Vassilis M. Rothos

Aristotle University of Thessaloniki

über das Thema: **Discrete Solitons: Existence and Stability**

Abstract: In this talk, we intend to give an overview of our recent theoretical and numerical activity in the theme of solitary nonlinear waves that arise in lattice system. The existence of localized traveling waves (sometimes called “moving discrete breathers” or “discrete solitons”) in discrete nonlinear Schrödinger (DNLS) and discrete sine-Gordon (DSG) lattices has shown itself to be a delicate question of fundamental interest. This interest is largely due to the experimental realization of solitons in discrete media, such as waveguide arrays optically induced photorefractive crystals, Bose-Einstein condensates coupled to an optical wave trap. We study the existence and bifurcation of discrete solitons in lattices with local and nonlocal interactions. The mathematical methods are based in using center manifolds, normal forms, Palais-Smale conditions, variational methods.

Der Gast wird von Prof. Dr. M. Herrmann betreut.

Alle Interessenten sind zum Vortrag herzlich eingeladen.

Kaffee ab 13.45 Uhr im Konferenzraum der Mathematik (EG - 1.03)

Die Dozenten der Mathematik