

## Marc Georgi Homoclinic orbits and Hopf points in forward-backward delay equations

## TIME:

8 May 2007, 17:00 - 19:00

## LOCATION:

Freie Universitat, Arnimallee 6, 14195 Berlin-Dahlem (Raum 031)

Forward-backward delay equations have recently attracted much attention. They typically arise as traveling wave equations of lattice-differential equations. In contrast to pure delay equations forward-backward delay equations are not well-posed. This talk focuses on a bifurcation of a homoclinic orbit to an asymptotic equilibrium, which undergoes a Hopf bifurcation. Using invariant manifolds we can successfully detect bifurcating solutions near the primary homoclinic orbit. This is the first time that such a global bifurcation is analysed in the setting of forward-backward delay equations.