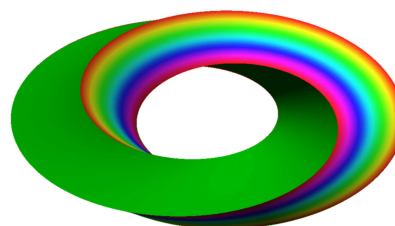


Bifurcations in Dynamical Systems with Applications

May 19 - May 21, 2008

SFB 701



Department of Mathematics, Bielefeld University

Program

Monday

8:30	Registration
9:00 - 9:10	Welcome
9:10 - 9:45	André Vanderbauwhede (Gent) Lyapunov-Schmidt — a discrete revision
9:50 - 10:25	Hinke Osinga (Bristol) Resetting behavior of bursting in secretory pituitary cells
10:30 - 10:45	Coffee break
10:45 - 11:20	Peter Kloeden (Frankfurt am Main) Bifurcations and continuous transitions of attractors in autonomous and nonautonomous systems
11:25 - 11:50	Tassilo Küpper (Köln) Invariant cones and bifurcation for nonsmooth systems
11:55 - 12:20	Robert Szalai (Bristol) Resonances in a piecewise-smooth system
12:25 - 13:40	Lunch break
13:40 - 14:05	David Sinden (London) Spatially complex localisation of an elastic conducting rod in a uniform magnetic field
14:10 - 14:35	András Árpád Sipos (Budapest) A global numerical method for finding isolated solution branches with applications to a conducting elastic rod in a uniform magnetic field
14:40 - 15:05	Thorsten Hüls (Bielefeld) Verifying exponential dichotomies numerically
15:10 - 15:40	Coffee break

15:40 - 16:15	Martin Rasmussen (Augsburg) Bifurcation theory for nonautonomous differential equations
16:20 - 16:55	Christian Pötzsche (München) A classical approach to nonautonomous continuation and bifurcation
17:00 - 17:10	Break
17:10 - 17:35	Yuri A. Kuznetsov (Utrecht) Continuation of cycle-to-cycle connections in 3D-ODEs
17:40 - 18:05	Thorsten Rieß (Ilmenau) A Lin's method approach to finding and continuing heteroclinic connections involving periodic orbits
18:10	End of program

Tuesday

8:25	Registration
8:30 - 9:05	Alan Champneys (Bristol) Localised travelling waves in nonlinear lattices
9:10 - 9:45	Oliver Junge (München) Discretization of transfer operators using a sparse hierarchical tensor basis-the Sparse Ulam method
9:50 - 10:05	Coffee break
10:05 - 10:40	Bart Oldeman (Montreal) AUTO-07p and Computing Unstable Manifolds of Periodic Orbits in the Restricted 3-Body Problem
10:45 - 11:10	Mindaugas Radziunas (Berlin) Numerical bifurcation analysis of a PDE model for multisection semiconductor lasers
11:15 - 11:20	Break
11:20 - 11:55	Lajos Lóczy (Budapest) The discretized fold, transcritical and pitchfork bifurcations: conjugacy results
12:00 - 12:25	Joseph Paez Chavez (Bielefeld) Discretizing Dynamical Systems with a Codimension two Singularity
12:30 - 13:30	Lunch break
13:30 - 14:05	Claudia Wulff (Surrey) Numerical bifurcation of Hamiltonian relative periodic orbits
14:10 - 14:35	Frank Schilder (Surrey) A new development platform for computational bifurcation analysis
14:40 - 15:00	Coffee break

15:00 - 15:35	Jorge Galan-Vioque (Sevilla) Continuation in reversible systems with application to degenerate subharmonic bifurcations
15:40 - 16:05	Thomas Wagenknecht (Leeds) Snakes, ladders and isolas: Localised patterns in the Swift-Hohenberg equation
16:10 - 16:20	Break
16:20 - 16:55	Khashayar Pakdaman (Paris) Dynamics of neuronal coding
17:00 - 17:35	Dirk Roose (Leuven) Parameter estimation for hyperbolic partial differential equations, modelling virus population dynamics
17:40	End of program

19:30	Conference dinner
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Wednesday

8:25	Registration
8:30 - 9:05	Kurt Lust (Groningen) The Newton-Picard method for fluid flow problems
9:10 - 9:35	Eusebius Doedel (Montreal) An interesting bifurcation scenario in a 3D laser model - with open questions ...
9:40 - 10:00	Coffee break
10:00 - 10:35	Willy Govaerts (Gent) Bifurcations of maps: algorithms and applications
10:40 - 11:05	Virginie De Witte (Gent) Convergence properties of collocation methods for solving the adjoint equations
11:10 - 11:20	Break
11:20 - 11:45	Wolf-Jürgen Beyn (Bielefeld) Localization and continuation of nonlinear eigenvalues
11:50 - 12:25	Bernd Krauskopf (Bristol) Bifurcation analysis of aircraft on the ground
12:30	End of conference

13:30 - 18:30	Excursion
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