

Minisymposium 11

Nichtglatte dynamische Systeme

Tassilo Küpper (Köln)

Many results in the theory of dynamical systems are based on smoothness requirements, which do not always hold in applications: As typical examples we mention switches in electrical circuits, effects caused by dry friction or by sudden state dependent impacts: Present research is concerned with the question if and to what extent results of the classical theory can be carried over to nonsmooth system: A central point refers to the reduction to invariant manifolds: The concept of invariant cones-like objects has turned out as an appropriate generalization of the notion of center manifolds for example.

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Montag, 19. September**Seminargebäude, S25**

- 14:00 Tassilo Küpper (Köln)
Bifurcation of periodic orbits for non-smooth systems
- 14:20 Hany A. Hosham (Köln)
Nonstandard bifurcation phenomena in nonsmooth system
- 14:40 Daniel Weiss (Tübingen)
Existence of Invariant Cones for Piecewise Linear Systems
- 15:00 Olga Voytlovska (Köln)
Discontinuity induced Boundary Equilibrium Bifurcations in Filippov systems
- 15:20 Albert Granados (Stuttgart)
Melnikov's method for subharmonic orbits in a piecewise-defined Hamiltonian system with impacts
- 15:40 Tassilo Küpper (Köln)
Bells as impacting system „Die Kaiserglocke im Kölner Dom“