

Graduiertenkolleg

Experimentelle und konstruktive Algebra



Kolloquiumsvortrag

Dienstag, 21. Januar 2014, 14:15 Uhr, Hörsaal klPhys

PETER DE MAESSCHALCK (UNIVERSITEIT HASSELT, HASSELT, BELGIEN):
Slow-fast systems in the plane and their normal forms

In the context of slow-fast differential equations in systems with two variables, Fenichel coordinates are often used to present the equations in a simplified normal form. Fenichel coordinates allow to split the fast and the slow variables so that ultimately a decoupled system of differential equations is obtained. At points where normal hyperbolicity is lost, Fenichel coordinates are undefined. We present a simple formal normal form, and prove that the involved formal series can be realized up to exponentially small error term. The error term is related to the divergence of the involved power series.

Wir laden alle Interessierten herzlich ein.

Ab 13:30 Uhr gibt es Kaffee und Tee in der Bibliothek des Lehrstuhl D für Mathematik.