

Computation of normal forms of ODEs for systems with many parameters

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Normal forms are among main tools for studying bifurcations in systems of ODEs. In the talk I present a new method for computing normal forms of polynomial systems of ODEs depending on many parameters. It is based on using Lie transforms in the space of parameters, which is a kind of a dual space. The approach provides a simple way to parallelize the normal form computations.

This is a joint work with Tatjana Petek.