

Seminário de Sistemas Dinâmicos

Normal Forms of Constrained Differential Systems and Structural Stability

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Resumo

The subject of this work is the theory of normal forms of smooth vector fields of constrained systems (systems of non-linear differential-algebraic equations). In this study we introduce the qualitative theory of ordinary differential equations, with topics such as stability, structural stability, bifurcations, limit cycles and catastrophes of differential equations, and the functional singularity theory. The goal of this work is classify and normalize constrained systems, first of all from the local point of view, we'll show an idea of the global one and our final objective will be extend this theory to differentiable manifolds of dimension $n \geq 2$.

Data: 25/06/2019.

Hora: 16:00 h.

Local: Sala de Aula do IME.