Mês de: Junho 2009

SEMINÁRIO DE ANÁLISE E EQUAÇÕES DIFERENCIAIS

Dia 18 de Junho (quinta-feira), às 14h15, na Sala B3-01

"Numerical simulation of multibody systems with contact and friction"

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Abstract:

We present a framework for the convergence analysis in a measure differential inclusion sense of a class of time-stepping schemes for multibody dynamics with contacts, joints, and friction. This class of methods solves one linear complementarity problem per step and contains the semi-implicit Euler method, as well as trapezoidal-like methods for which second-order convergence was recently proved under certain conditions.

By using the concept of a reduced friction cone, the analysis includes, for the first time, a convergence result for the case that includes joints.

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