



**Mês de: Maio 2009**

## **SEMINÁRIO DE ANÁLISE E EQUAÇÕES DIFERENCIAIS**

**Dia 21 de Maio (quinta-feira), às 14h15, na Sala B3-01**

“Branches of heteroclinic solutions to perturbed second order equations: bifurcation from the autonomous case”

***Andrea Gavioli***

(Università di Modena)

**Abstract:** We consider an equation of the kind  $\ddot{x} = a(t)V'(x)$ , where  $V$  is a non-negative double well potential, and  $a(t) \geq l > 0$  is a measurable, definitively monotone coefficient which converges to  $l$  as  $|t|$  diverges. By a suitable homotopy  $r \mapsto a_r$ ,  $0 \leq r \leq 1$ , we transform  $a(t) = a_1(t)$  into the constant  $l \equiv a_0(t)$ , and build a continuum of heteroclinic trajectories of the perturbed equations  $\ddot{x} = a_r(t)V'(x)$ ,  $0 \leq r \leq 1$ .

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Local:  
**COMPLEXO INTERDISCIPLINAR**  
Av. Prof. Gama Pinto, 2  
1649-003 Lisboa

