



Mês de: **Junho 2010**

## SEMINÁRIO DE SISTEMAS DINÂMICOS

**Dia 16 de Junho (quarta-feira), às 14h30, na Sala B1-01**

“Periodic points for the  $\beta$ -transformation in the Pisot and Salem case”

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**Abstract:**

Consider the set of eventually periodic points for the beta-transformation of the unit interval, when beta is a Pisot or a Salem number (these are certain types of algebraic integers). This problem was addressed by Schmidt in 1980, and it was solved for the Pisot (hyperbolic) case.

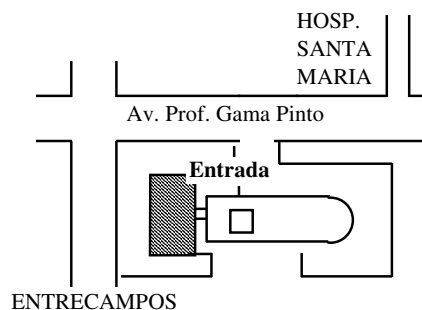
We propose an alternative and equivalent dynamical system to study this set of eventually periodic points. This new system is related to the companion matrix of the minimal polynomial of beta, and there are some connections with the associated total automorphism.

This work is part of my Ph.D. thesis, which is available from:

[http://www.warwick.ac.uk/~marcq/bmaia\\_thesis.pdf](http://www.warwick.ac.uk/~marcq/bmaia_thesis.pdf)

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