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36° EDAÍ 23 de novembro de 2012  
Sala C-208 do Bloco C (Matemática) do CT, UFRJ.

Matinê: 14:00 – 15:00

**Algebraic limit cycles and the 16-th Hilbert problem**

Jaume Llibre (Universitat Autònoma de Barcelona)

We present a brief survey on the present status of the second part of the 16-th Hilbert problem including some new results. We shall put special emphasis in the algebraic limit cycles.

Palestra 1: 15:00 – 16:00

**The microscopic and macroscopic world of two dimensional piecewise isometric systems**

Arek Goetz (San Francisco State University)

Let  $X$  be a subset of the plane. A piecewise isometry  $T$  on  $X$  is a collection of isometries  $\Xi$  on disjoint subsets  $\Pi$ . Piecewise isometries are natural generalizations of interval exchange transformations. We will illustrate a number of surprising phenomena in case  $T$  is invertible. For example we show that in the case of a two-half plane map even though there is no natural finite invariant measure, almost all orbits are recurrent and if  $\Xi$  are rotations by an angle commensurate with  $\pi$  then all orbits are bounded. The talk will be augmented by spectacular fractal computer graphics and animations and it will be accessible to graduate students.

Some results presented are joint work with Peter Ashwin (Exeter) and Anthony Quas (Victoria). Open problems will be listed as well.

Café: 16:00 – 16:30

Palestra 2: 16:30 – 17:30

**Medidas de máxima entropia e difeomorfismos parcialmente hiperbólicos**

Martín Sambarino (Universidad de la República)

Discutiremos a existência e unicidade de medidas de máxima entropia para difeomorfismos parcialmente hiperbólicos, em particular quando a dimensão central é 1 e quando o difeomorfismo é isotópico a um difeomorfismo de Anosov. A discussão está baseada num artigo em conjunto com J. Buzzi, T. Fisher e C. Vásquez e num trabalho em andamento com T. Fisher e R. Potrie.

Confraternização: 19h00 – ∞

**Manuel & Joaquim (Flamengo)**

Rua Almirante Tamandaré, 77 (esq. c/ Rua do Catete)



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<http://groups.google.com/group/DinamiCarioca>

