



Departamento de  
Álgebra

## Seminario de Geometría y Topología



### Frank Wagner

Institut Camille Jordan, Université de Lyon I

## Relative CM-triviality and definability of groups

### Abstract

In model theory there exists a combinatorially defined notion of dimension similar to Zariski dimension. It had originally been conjectured that sets of dimension one must essentially be one of the known types (degenerate, vector spaces or algebraically closed fields); this has been refuted by Ehud Hrushovski via some ingenious amalgamation construction. His method has later led to the construction of strange geometries on (algebraically closed) fields: A field of dimension 2 with a proper infinite additive or multiplicative subgroup of dimension 1, or two fields living independently on the same set, of total dimension 1.

We shall analyse the geometric properties of these new structures in relation to the base structure (in the examples just the field), and deduce properties of definable groups.

Organizado por el Departamento de Geometría y Topología y el Instituto de Matemática Interdisciplinar.

Lunes 15 de diciembre de 2008, 12:00

Seminario del Departamento de Geometría y Topología (aula 225)  
Facultad de CC.Matemáticas, UCM.