

Giovedì 12 novembre in aula 4

ore 14:00 Itai Ben Yaacov (Université Claude Bernard - Lyon 1)
On automorphism groups of \aleph_0 -categorical metric structures

I shall speak of the model theoretic aspects of an ongoing project with A. Berenstein and J. Melleray. In this project, motivated by descriptive set-theoretic considerations, we are led to the consideration of Polish groups which arise as automorphism groups of separable metric structures. This involves a new kind of interaction between the Polish topology on the one hand and a metric which is finer than the topology on the other hand, a phenomenon which is by no means new from the point of view of the model theory of metric structures.

This discussion will allow me to give a succinct presentation of continuous first order logic and rudimentary model theory in the context of metric structures.

ore 15:00 Tamara Servi (CMAF - Lisboa)
On the decidability of the real field with a generic power function

(Joint work with G. Jones.) In recent work we proved that, if A is a real number not zero-definable in the real exponential field, then the theory of the real field with the power function x^A is decidable, relative to an oracle for A . I will prove this statement, and give a proof of the existence of a computable generic real number.

ore 16:00 Alex Usvyatsov (CMAF - Lisboa)
Minimal types in stable Banach spaces

I will discuss the recent developments in geometric stability theory of Banach spaces and the affirmation of a formulation of Henson's Conjecture: an uncountably categorical Banach space is "essentially" the Hilbert Space. This is a joint work with S. Shelah.