Seminari de Geometria Algebraica 2016-2017
Divendres 16 de desembre a les 15:00, aula T2 FMI–UB
http://www.ub.edu/sga/

On the equidistribution of Galois orbits of points of small height on the algebraic torus

Marta Narváez Clauss
Universitat de Barcelona

Bilu's equidistribution theorem establishes that, given a strict sequence of points on the N-dimensional algebraic torus whose Weil height tends to zero, the Galois orbits of the points are equidistributed with respect to the Haar probability measure of the unit polycircle.
In this talk I will present a quantitative version of this result. Given a point on the algebraic torus of Weil height less than 1, I will provide a bound for the integral of a suitable test function with respect to the signed measure defined as the difference of the discrete probability measure associated to the Galois orbit of the point and the Haar probability measure of the unit polycircle. This bound is given in terms of a constant depending only on the test function, the Weil height of the point, and a notion that generalizes to higher dimension the degree of an algebraic number.

This is joint work with Carlos D'Andrea and Martín Sombra.
