

Seminari de Geometria Algebraica 2012/2013 (UB-UPC)

Divendres 28 de setembre a les 15 hs, aula B1 FM-UB

<http://atlas.mat.ub.es/sga>

Arithmetic intersections on modular curves

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In the study of rational points on curves defined over number fields, height estimates play a crucial role, in particular estimates for the Faltings height of the Jacobian of the curve under consideration. Since the Faltings height is related to the arithmetic self-intersection of the relative dualizing sheaf (equipped with the Arakelov metric), estimates for this arithmetic self-intersection are of interest in this respect. The latter quantity has been asymptotically calculated for modular curves $X_0(N)$ as $N \rightarrow \infty$ in work of Abbes, Michel, and Ullmo. In our talk we will present corresponding results for the modular curves $X_1(N)$ as $N \rightarrow \infty$ based on results of my PhD student H. Mayer.
