- Name: Mladen Dimitrov (University of Lille)

- Title : Uniform boundedness for the rational torsion of abelian 3-folds of Picard type

- Abstract: In 1969 Manin proved a uniform version of Serre's celebrated result on the openness of the Galois image in the automorphisms of the p-adic Tate module of any non-CM elliptic curve over a given number field. Recently in a series of papers Cadoret and Tamagawa established a definitive result regarding the uniform boundedness of the p-primary torsion for 1-dimensional abelian families. In a collaboration with D. Ramakrishnan we provide first evidence in higher dimension, in the case of abelian families parametrized by Picard modular surfaces over an imaginary quadratic field M. Namely, we establish a uniform bound for the p-primary torsion of principally polarized abelian 3-folds with multiplication by M, but without CM factors, subject to some rationality condition at the primes dividing the discriminant of M.

- Date and place 12:00 on 18/02/2019 at Room T1 of UB's historical building at Placa Universitat.

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