

MULTIPLE ZETA VALUES SEMINAR

Miércoles, 22 de octubre de 2014

16:30 h., Aula Gris 2 (ICMat, Campus de Cantoblanco)

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Degenerations of jacobians of
algebraic curves over
high-dimensional bases (part II)

Resumen:

Let S be a smooth variety, and U an open dense subvariety of S . Let J/U be a family of jacobians over U . Let P in $J(U)$ be a section of J/U . Then to each test curve T into S we associate a numerical invariant on T called the height jump, which is an obstruction to extend P , or any multiple of P , into a semiabelian scheme over S . The height jump has been introduced in an analytic context by R. Hain.

As an example we take U to be the universal elliptic curve over the modular curve $Y(N)$, and $(J/U, P)$ the tautological family over U , equipped with its tautological section. We compare the outcome with a recent analytic result in this context due to Burgos, Kramer and Kühn.