Séminaire de théorie des nombres

Le 24 octobre 2016 à 14h (Jussieu)

Division by 2 on hyperelliptic curves and jacobians

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Résumé :

Let $g > 1$ be an integer. Suppose that C is a genus g hyperelliptic curve that is canonically embedded into its g-dimensional jacobian J in such a way that one of the Weierstrass points goes to zero. For each "finite" point P of C we describe explicitly the Mumford representations of all 2^{2g} halves of P in J. As an application, we prove that the genus 2 curve $y^2 = x^5 - x + 1$ does not contain points of odd order >1.