Oberseminar
Zahlentheorie und Arithmetische Geometrie

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"Bad reduction of genus 3 curves with complex multiplication"

Let C be a smooth curve of genus 3 over a number field L. Suppose that the Jacobian of C has complex multiplication by an order R in a sextic CM field K and that K contains no imaginary quadratic subfield. The stable reduction of C at a prime p of L may remain a smooth curve of genus 3; we call this situation 'good reduction'. On the other hand, the stable reduction of C at p may contain singularities; this is the case of 'bad reduction'.

In the bad reduction scenario, the stable reduction of C can either contain three curves of genus 1, or one curve of genus 1 and one curve of genus 2. We give an explicit bound B (depending only on R) such that for all p>B, the stable reduction of C does not contain three curves of genus 1.

Mittwoch, 22.07.2015
ab 16:00 Uhr, Raum a410
Hauptgebäude der Leibniz Universität Hannover

Alle Interessierten sind herzlich eingeladen.

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und Diskrete Mathematik