

BOSTON UNIVERSITY NUMBER THEORY SEMINAR

Arithmetic of hyperelliptic curves over local fields

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Monday, November 19 at 4:15 pm
111 Cummington Mall, MCS B21
Tea and cookies in MCS 144 at 4:00 pm

Abstract: Let $C : y^2 = f(x)$ be a hyperelliptic curve over a local field K of odd residue characteristic. We show how several arithmetic invariants of the curve and its Jacobian, including its potential stable reduction, Galois representation and (in the semistable case) Tamagawa numbers, can be simply extracted from combinatorial data coming from the roots of $f(x)$.