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Algebra and Number Theory Seminar

Safia Haloui (Institut de Math. de Luminy, Marseille)

will speak on

**On the number of rational points on some abelian varieties over
finite fields**

Mon 29th November 2010 at 4:00PM

Location: Mathematical Sciences Seminar Room

Let A be an abelian variety of dimension g defined over $\text{GF}(q)$. By Weil conjectures, we have $(q+1-2q^{1/2})^g \leq A(\text{GF}(q)) \leq (q+1+2q^{1/2})^g$. It is actually possible (as for curves) to substitute $2q^{1/2}$ with its integer part. Deschamps and Perret gave better bounds when A is a Jacobian variety. We are interested in abelian varieties with small dimension g . We determine exactly the maximum and minimum number of rational points on Jacobians on surfaces. Next we determine...

This talk is part of the **Algebra and Number Theory** series. For more, see
<https://maths.ucd.ie/seminars>