

# COLLOQUIUM

## *Mass formulas for mod $p$ Galois representations*

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**Abstract:** The recent proof of Serre's conjecture allows one to prove the finiteness of certain types of Galois representations (2-dimensional mod  $p$ , odd, semisimple representations of the absolute Galois group of the rationals with bounded prime to  $p$  Artin conductor). One may ask for quantitative refinements of this. It seems hard to get a grip on this, although one can formulate a natural expectation.

This is in the spirit of the theorem of Hermite-Minkowski which asserts that there are only finitely many extensions of the rationals of bounded discriminant. One can ask for quantitative versions of this: a precise count is again unknown.

Thursday, September 25, 2008, 4:00 pm  
Mathematics and Science Center: W201

Refreshments will be served in the department lounge at 3:30pm

MATHEMATICS AND COMPUTER SCIENCE  
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