

1116-11-1431 **Douglas Ulmer*** (douglas.ulmer@math.gatech.edu). *Explicit high ranks in higher genus.*

For every genus $g > 0$ and many primes p , we write down a curve over $\mathbf{F}_p(t)$ with Jacobian of large rank and with explicit divisors filling out a finite index subgroup of the Mordell-Weil group. The height pairings among the explicit divisors have a very nice group-theoretic description, and we have an analytic class number formula of the form:

$$(\text{order of Tate-Shafarevich group}) = (\text{square of index of the explicit subgroup in the full Mordell-Weil group}).$$

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