

1018-11-146

**Rachel Pries\*** ([pries@math.colostate.edu](mailto:pries@math.colostate.edu)). *The  $p$ -torsion of curves in characteristic  $p$ .* Preliminary report.

Consider the Jacobians of curves of genus  $g$  with  $p$ -rank  $f$  defined over an algebraically closed field of characteristic  $p$ . In this talk, I will state a conjecture about the group scheme which occurs generically as the  $p$ -torsion of these Jacobians. I will prove the conjecture for all  $g$  when  $f$  is between  $g-3$  and  $g$  and explain a method which might work more generally. I may also talk about results with Darren Glass on hyperelliptic curves and about results with Hui June Zhu on Artin-Schreier curves. (Received March 03, 2006)