

1077-11-2349 **Jennifer Paulhus*** (paulhusj@grinnell.edu), Grinnell College, Department of Mathematics and Statistics, Grinnell, IA 50112. *Decomposing Jacobian Varieties of Curves.*

Jacobian varieties which have many elliptic curves as factors in their decompositions have interesting applications to rank and torsion questions. Given a curve X with automorphism group G , idempotent relations in the group ring $\mathbb{Q}[G]$ lead to decompositions of the Jacobian of X . In this talk we briefly explain the techniques involved and some recent results obtained from these techniques. We are particularly interested in hyperelliptic curves whose Jacobians have many elliptic curve factors. We will also discuss how data from a computer program of Breuer's provides some insight for families of higher genus curves. (Received September 22, 2011)