

1046-14-1494

Enver Ozdemir* (enveroz@math.umd.edu), Department of Mathematics, University of Maryland, College Park, MD 21227. *Group Operation on the Jacobian of Singular Hyperelliptic Curves*. Preliminary report.

Let H be a singular hyperelliptic curve over a field F . In this talk, we will describe the group operation on the Jacobian of H and possible applications to factorization of polynomials and cryptography. We will then present a geometric analogue of Shanks' Algorithm and new methods for square roots . (Received September 15, 2008)