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**Lisa Berger, Chris Hall, René Pannekoek, Jennifer Park, Rachel Pries, Shahed Sharif, Alice Silverberg\*** (asilverb@uci.edu) and **Douglas Ulmer**. *Explicit points on a family of Jacobians of superelliptic curves over global function fields*. Preliminary report.

In a project initiated at an AIM workshop, we are studying arithmetic questions about the Jacobian variety of the curve  $y^r = x^{r-1}(x+1)(x+t)$  over fields of the form  $K_d = \mathbb{F}_p(\mu_d, t^{1/d})$  where  $d = 1 + p^f$  and  $r$  divides  $d$ . In particular, we find explicit rational points and rank  $(d-2)(r-1)$ , generalizing earlier work of Ulmer on the Legendre elliptic curve. This talk will give a report on our progress. (Received September 05, 2012)