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Lisa Berger* (lbrgr@math.arizona.edu). *Ranks of abelian varieties over function fields*. Preliminary report.

We discuss a geometric construction that allows us to produce parameterized families of curves over function fields of the form $\mathbb{F}_q(t)$ whose Jacobians satisfy the rank conjecture of Birch and Swinnerton-Dyer. We find, for some of these curves, that their Jacobians obtain large rank in towers of field extensions. (Received February 26, 2007)