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**Douglas Ulmer\*** ([douglas.ulmer@math.gatech.edu](mailto:douglas.ulmer@math.gatech.edu)), School of Mathematics, Georgia Institute of Technology, Atlanta, GA 30306. *Rational curves on elliptic surfaces.*

Given a non-isotrivial elliptic curve  $E$  over  $K = \mathbf{F}_q(t)$ , there is always a finite extension  $L$  of  $K$  which is itself a rational function field such that  $E(L)$  has large rank. The situation is completely different over complex function fields: For “most”  $E$  over  $K = \mathbf{C}(t)$ , the rank of  $E(L)$  is zero for any rational function field  $L = \mathbf{C}(u)$ . The yoga that suggests this theorem leads to other remarkable statements about rational curves on surfaces generalizing a conjecture of Lang. (Received January 18, 2016)