

Big prime factors in orders of elliptic curves over finite fields

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Abstract. Let E be an elliptic curve over the finite field \mathbb{F}_q . We prove that, when n is a sufficiently large positive integer, $\#E(\mathbb{F}_{q^n})$ has a prime factor exceeding $n \exp(c \log n / \log \log n)$.

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Mathematics Subject Classification: 11B37, 11G20.

Key words and phrases: prime factors, linear recurrent sequences.