

1116-VN-2053

Jonathan Douglas Chan* (jdchan@princeton.edu), **Soonho Kwon** and **Michael Seaman**.

On the distribution of discriminants over a finite field.

For a prime power q , we show that the discriminants of monic polynomials in $\mathbb{F}_q[x]$ of a fixed degree m are equally distributed if $\gcd(q-1, m(m-1)) = 2$ when q is odd and $\gcd(q-1, m(m-1)) = 1$ if q is even. A theorem in the converse direction is proved when $q-1$ is squarefree. (Received September 21, 2015)