

1056-11-1906

Thai Hoang Le* (1eth@math.ucla.edu), UCLA Mathematics Department, Box 951555, Los Angeles, CA 90095-1555. *Green-Tao theorem in function fields.*

We adapt the proof of the Green-Tao theorem on arithmetic progressions in primes to the setting of polynomials over a finite field, to show that for every k , the irreducible polynomials in $\mathbf{F}_q[t]$ contain configurations of the form $\{f + Pg : (P) < k\}, g \neq 0$. (Received September 22, 2009)