1138-05-318 **Zechun Yang*** (zzy0009@auburn.edu). *A Lower Estimate of the Independence Number of the Hypergraph of p-Term Cyclic Arithmetic Progressions on the Integers Modulo p^n, For Odd Primes p.* Preliminary report.

If $m > k \geq 3$, k-term cyclic arithmetic progression modulo m are defined just as ordinary arithmetic progressions are defined, except that the elements of the progressions are congruence classes mod m. For instance, $4, 8, 1$ is a 3-term cyclic arithmetic progression modulo 11, if we allow $0, \ldots, 10$ to represent the congruence classes mod 11. In this paper, it is shown that for every odd prime p and integer $n > 1$, there is a set B of congruence classes modulo p^n such that $|B| = (p-1)^n$, and B contains no p-term cyclic arithmetic progression mod p^n. (Received February 12, 2018)