

1145-11-1168      **Xuancheng Shao\*** (fernandoshao@gmail.com). *Gowers uniformity of primes in arithmetic progressions and in short intervals.*

A celebrated theorem of Green-Tao asserts that the set of primes is Gowers uniform (after W-trick). In this talk I will discuss results of this type for primes restricted to either arithmetic progressions or short intervals. As applications, these results will allow us to count linear equations in primes restricted to arithmetic progressions or short intervals. (Received September 19, 2018)