Azita Mayeli* (amayeli@gc.cuny.edu). Wavelet Sets in Vector Spaces over Cyclic Groups of Prime Order.

Let $q$ be an odd prime and $\mathbb{F}_q^d$, $d \geq 1$, be the vector space over the cyclic space of prime order, $\mathbb{F}_q$. In this talk we shall introduce tight wavelet sets in $\mathbb{F}_q^d$ and characterize them in terms of multiplicative and translation tilings. Then we shall use a number theoretic approach to provide a constructive method for obtaining such sets when $d \geq 2$ and $q \equiv 3 \pmod{4}$. (Received September 20, 2016)