1096-12-1458 **Keenan Monks*** (monks@college.harvard.edu), 293 Dunster Mail Center, Cambridge, MA 02138. *Kernel Polynomials of Tile Digit Sets.*

Let $\mathcal{D} \subset \mathbb{Z}^+$ be a set of size b. By studying the possible *kernel polynomials* of the mask polynomials of $\mathcal{D}$, Lai, Lau, and Rao showed that, for $b = p^\alpha q$ for primes p, q, $\mathcal{D}$ is a tile digit set if and only if is a modulo product-form of some order. We generalize their methods to classify the kernel polynomials of tile digit sets for the case $b = p^2q^2$. (Received September 15, 2013)