1086-11-2388 **Trey Brock*** (trey.brock@gmail.com). *Diophantine Monoids Defined by a Single Linear Equation.* Preliminary report.

In this talk, we will consider factorization properties of diophantine monoids defined by a single linear equation with exactly one negative coefficient, that is $M = \ker \begin{bmatrix} a_1 & \dots & a_n & -b \end{bmatrix} \bigcap \mathbb{N}_0^{(n+1)}$ where $a_1, \dots, a_n, b$ are positive integers. In particular, we utilize the block monoid of M to compute important factorization properties such as elasticity, the set of lengths and to enumerate the atoms of this monoid. (Received September 25, 2012)