1145-39-1641 **Ariel Setniker*** (asetniker2@unl.edu). *Sequential Nabla Fractional Differences.*

In this talk, we study the composition of nabla fractional differences, known as "sequential" nabla fractional differences, of the form $\nabla_{a+k+1}^{\nu}\nabla_{a}^{\mu}f(t)$ for $k \in \mathbb{N}_0$, in the case where $k < \mu < k+1$, $k+1 < \nu < k+2$, and $2k+1 < \mu+\nu < 2k+2$, and also in the case where $k < \mu < k+1$, $k-1 < \nu < k$, and $2k < \mu+\nu < 2k+1$. We present connections between the sign of these sequential nabla fractional differences and the monotonicity of the function $f(t)$, and further discuss fractional difference equations of the form $\nabla_{a+k+1}^{\nu}\nabla_{a}^{\mu}f(t) = h(t)$. (Received September 23, 2018)