1154-13-2603 **Claudia Miller**, **Hamid Rahmati*** (hrahmati2@unl.edu) and **Rebecca R.G.**. *Free resolutions of the Frobenius powers of the maximal ideal over a general hypersurface in 3 variables.* Preliminary report.

We study the asymptotic behavior of free resolutions of the Frobenius powers of the maximal ideal of hypersurface rings $R = k[x, y, z]/(f)$, where k is a field of positive characteristic. For general choices of f, we discuss the structure of free resolutions of the Frobenius powers of the maximal ideal and show that high enough powers have identical graded Betti numbers up to explicit shifts. We also compute the Hilbert-Kunz function of such rings. (Received September 17, 2019)