

1161-16-189

Luigi Ferraro* (lferraro@ttu.edu), **Frank Moore** and **Desiree Martin**. *The Taylor Resolution over a Skew Polynomial Ring*.

Abstract: Let I be a monomial ideal in the polynomial ring $R = k[x_1, \dots, x_n]$ over a field k . In her thesis, Taylor introduced a complex which provides a multi-graded free resolution for R/I as an R -module. Later, Gameda provided a differential graded structure on Taylor's complex. We generalize each of these results to monomial ideals in a skew polynomial ring. (Received August 17, 2020)