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**Sara Faridi\*** ([faridi@mathstat.dal.ca](mailto:faridi@mathstat.dal.ca)). *Lefschetz properties of Gotzmann square-free monomial ideals*. Preliminary report.

This talk is an exploration of Gotzmann square-free monomial ideals with the Weak Lefschetz Property. Hoefel and Mermin classified Gotzmann square-free monomial ideals in a polynomial ring, and showed also that the image of these ideals is Gotzmann in the Kruskal-Katona ring. Wiebe, on the other hand, characterized Hilbert functions of Gotzmann Artinian algebras that have the Weak Lefschetz Property. In this work we examine Wiebe's criterion against that of Hoefel and Mermin. The main motivation is a result of Migliore and Zanello which states that if a Gotzmann algebra has the Weak Lefschetz Property, then so does every Artinian algebra with the same Hilbert function. (Received January 20, 2018)