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Sema Gunturkun* (gunturku@umich.edu) and **Mel Hochster**. *On the Eisenbud-Green-Harris conjecture*. Preliminary report.

A generalization of the Macaulay's theorem on the growth of Hilbert functions of homogeneous ideals in $K[x_1, \dots, x_n]$ is given by the Eisenbud-Green-Harris(EGH) conjecture. It states that the lex-plus-powers ideals show extremal behavior among the homogenous ideals containing regular sequences. Although there has been some progress on the conjecture, it still remains widely open. In this talk, we discuss a case of the EGH conjecture for the homogeneous ideals generated by $n+2$ quadrics containing a full length regular sequence of quadratic forms. This is a joint work with Mel Hochster. (Received February 08, 2018)