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Sema Gunturkun* (gunturku@umich.edu) and **Mel Hochster**. *A Case of Eisenbud-Green-Harris Conjecture*. Preliminary report.

The Eisenbud-Green-Harris (EGH) conjecture states that a homogeneous ideal in a polynomial ring $K[x_1, \dots, x_n]$ over a field K that contains a regular sequence with given degrees a_1, \dots, a_n has the same Hilbert function as a lex-plus-powers ideal containing the powers of the variables x_i with the degrees a_i . In this talk, we discuss a case of the EGH conjecture for homogeneous ideals generated by $n + 2$ quadrics containing a regular sequence of full length and show that EGH is true when $n = 5$ and $a_1 = \dots = a_5 = 2$. This is a joint work with Mel Hochster . (Received September 14, 2018)