

1154-13-2037      **Sema Gunturkun\*** (sgunturkun@amherst.edu) and **Mel Hochster**. *A bound on the Hilbert function of a quadratic ideal*. Preliminary report.

We define a defect  $\delta$  quadratic ideal as a homogeneous ideal generated by  $n + \delta$  quadrics containing a regular sequence of quadratic forms. A bound for the Hilbert function of such quadratic ideals is conjectured by Eisenbud, Green and Harris using a corresponding monomial defect  $\delta$  quadratic ideal. I will discuss this bound especially in degree three for the defect three quadratic ideals. This is a joint work with Mel Hochster. (Received September 17, 2019)