

- Pedro Macias Marques,

Title: Jordan type of an Artinian Gorenstein algebra

Abstract: We study Artinian Gorenstein (AG) algebras and consider the set of Jordan types of elements of the maximal ideal, i.e. the partition giving the Jordan blocks of the respective multiplication map.

In a joint work with Chris McDaniel and Tony Iarrobino, we explore the possible obstructions that the symmetric decomposition of the associated graded algebra of an AG algebra  $A$  may impose on the Jordan type of  $A$ . We also study the contribution of Jordan type to understanding the irreducible component structure of the family of AG algebras of fixed Hilbert function. We will give examples and propose several open problems.