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Anthony A. Iarrobino* (a.iarrobino@neu.edu) and **Pedro Macias Marques**. *Jordan type for some Artinian local Gorenstein algebras*. Preliminary report.

The Jordan type of an Artinian algebra is the Jordan block partition associated to multiplication by a generic element of the maximal ideal. We study the Jordan type for Artinian Gorenstein (AG) local (non-graded) algebras A and the interaction of Jordan type with the symmetric decomposition of the (non-symmetric) Hilbert function $H(A)$. We give examples where the family $\text{Gor}(H)$ of AG algebras having Hilbert function H has two or more irreducible components. These examples result from the intersection of two filtrations of the family $\text{Gor}(H)$: the filtration by Jordan type satisfies the usual orbit-closure dominance property; the second filtration, by symmetric decomposition, satisfies a known semi-continuity property. Their intersection can force there to be several irreducible components to $\text{Gor}(H)$, in codimension three or higher. (Received August 03, 2020)