Tuesday 3 July 2018 – at 11:00 a.m.
Seminar Room “-1” – Department of Mathematics

Anthony Iarrobino
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Problems on Artinian algebras and Jordan type

Abstract:
The Jordan type $P_x$ of the multiplication map $m_x$ by a nilpotent element $x$ in an Artinian algebra $A$ is the partition giving the sizes in the Jordan block decomposition for $m_x$. It in general gives more information than whether $x$ is weak or strong Lefschetz. I will discuss the set of Jordan types possible for a given Artin algebra $A$, the relation of Jordan type to the Hilbert function of $A$, and the loci of elements $x$ for which $P_x$ is fixed, as invariants of $A$. (reference: arXiv:1802.07383 with Pedro Marques and Chris McDaniel).

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