

Srikanth Iyengar:

Extremal modules over commutative local rings

Over a commutative local ring R , it is known that the rate of growth of the Betti numbers of finitely generated modules is bounded above by that of the residue field of R . “Extremal modules” are those that achieve this upper bound. In my talk I will discuss some new results which demonstrate the ubiquity of extremal modules. It will be based on recent work with Luchezar Avramov and Claudia Miller, reported in our preprint: Homology over local homomorphisms, available on the arXiv.