Queen's Algebraic Geometry
— Seminar —

Level Extensions of Level Algebras

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Abstract

A standard, graded artinian algebra A is said to be *level* if the socle of A is concentrated in one degree. One would like to be able to classify the Hilbert functions of Artin level algebras, but this problem has proven to be very difficult. So we will limit ourselves to considering only level algebras that arise by taking the trivial extension of a level ring A by a module M. We will give necessary and sufficient conditions on M for this extension to be level and then we will consider the possible Hilbert functions that arise in this fashion.

Monday, February 7, 2004
2:30pm – 3:30pm
422 Jeffery Hall