Queen's Algebraic Geometry
— Seminar —

CALCULATION OF SYZYGIES OF NILPOTENT VARIETIES IN THE LIE ALGEBRA OF TYPE E_6

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Abstract

Nilpotent varieties arise in representation theory of Lie groups. We made calculations of the ideals and higher syzygies of nilpotent varieties in E_6 (and other exceptional Lie algebras), using various vanishing theorems of cohomology groups. One result is the classification of the normal nilpotent varieties, another is an indication that certain G-invariant Tor algebras have a very simple structure.

Monday, March 21, 2005
2:30pm – 3:30pm
422 Jeffery Hall