

Queen's Algebraic Geometry — Seminar —

LOCALIZATION OF WEIGHT MODULES OF LIE ALGEBRAS

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Abstract

In 1980 V. Deodhar introduced the localization of weight modules of Lie algebras in order to explicitly describe certain Enright completion functors. Twenty years later, O. Mathieu modified Deodhar's localization functor and managed to solve a long standing open problem. Namely, Mathieu obtained a classification of all simple weight modules with finite weight multiplicities of reductive Lie algebras. In this talk we will discuss recent developments of the localization constructions of Deodhar and Mathieu. More precisely, results related to the structure of the indecomposable weight modules will be presented.

Monday, January 12, 2009
4:30pm – 5:30pm
319 Jeffery Hall