

MATHEMATICS DEPARTMENT
North Carolina State University

ALGEBRA SEMINAR

Friday, April 18, 2008

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San Jose State University

Categories of weight modules of Lie algebras

ABSTRACT: In the early 20th century H. Weyl classified all finite-dimensional representations of the classical Lie algebras in terms of the so-called character formula. Following works of G. Benkart, D. Britten, S. Fernando, V. Futorny, F. Lemire, A. Joseph and others, in 2000, O. Mathieu achieved a major breakthrough in the representation theory by obtaining an infinite dimensional analog of Weyl's result for the so called weight modules. In this talk we will discuss the recent developments of Mathieu's ideas and methods. More precisely, results related to the structure of the indecomposable weight modules will be presented. These results are a part of an ongoing joint project with V. Serganova.

4:00 - 4:50 pm HA 335

Faculty, students and post-docs are encouraged to attend.