

MATHEMATICS DEPARTMENT
North Carolina State University

ALGEBRA SEMINAR

Friday, March 28, 2008

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University of Connecticut

The Jacobi identity for vertex operators, and
standard $A_1^{(1)}$ and $A_2^{(2)}$ -modules

ABSTRACT: The Jacobi identity for relative twisted vertex operators is, roughly speaking, the Jacobi identity for vertex operator algebras generalized by means of the correction factors that preserve the structure of the identity in the general case of relative twisted operators. The application of the identity to the $A_1^{(1)}$ and $A_2^{(2)}$ weight lattices shows how the correction factors form the generalized commutator and anti-commutator relations for the Z -operator construction of standard modules. In the $A_1^{(1)}$ -case, multi-operator extensions of the Jacobi identity also describe the relationship between Z -operators and the generating function identities for the annihilating ideals of standard modules.

4:00 - 4:50 pm HA 335

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