

# Colloquium

University of Texas at Arlington- Mathematics Department  
*Proudly presents*

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Friday, November 20, 2009

3:00pm

304 Pickard Hall

"A Geometric Realization of Extreme Components  
of the Tensor Product of Modules Over  $GL_n$ "

## **Abstract:**

In this talk I will explain how the celebrated theorem of Borel-Weil-Bott provides a natural realization of some extreme components of the tensor product of two irreducible modules of  $GL_n$ . I will also discuss a number of connections of our construction with problems coming from Representation Theory, Combinatorics, and Geometry, including questions about the Littlewood-Richardson cone related to Horn's conjecture, settled by Knutson and Tao in the late 1990's.

The talk is based on a joint work with Mike Roth.

*Refreshments served before the talk and socializing will follow after*  
<http://www.uta.edu/math/pages/main/seminar.htm>