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

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.