

Meeting: 1001, Evanston, Illinois, SS 1A, Special Session on Modern Schubert Calculus

1001-14-321 **Richard Rimanyi*** (rimanyi@email.unc.edu), Department of Mathematics, University of North Carolina at Chapel Hill, CB#3250 Phillips Hall, Chapel Hill, NC 27516. *Some new results on Thom polynomials.*

Giambelli's formula computes the class of an orbit closure in the $GL(n) \times GL(p)$ -equivariant cohomology of $HOM(C^n, C^p)$. In this talk we will present some new results in two different natural generalizations. (1) Quiver representations occur when we consider direct sums of HOM spaces—instead of just one of them—arranged with respect to a diagram. We will show how a simplification of earlier work (by A. Buch, L. Feher, R.R.), gives the sought equivariant class formulas in the A_n quiver case (arbitrarily oriented) [joint work with A. Buch]. (2) Instead of linear maps we can consider holomorphic germs from C^n to C^p . Then generalizations of the Giambelli formula are called the Thom polynomials of singularities. We will present a so far hidden structure of these Thom polynomials [joint work with L. Feher]. (Received August 30, 2004)