Mathematical Colloquium

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"Schubert Calculus and Representation"

Wednesday May 14, 2008

4:10 p.m. – 5:00 p.m.
Surge 284
Tea time @ 3:30 in Surge 284

ABSTRACT: The Bethe algebra is a natural commutative subalgebra in the universal enveloping algebra of the current algebra. We explain that in case of gl(N) the action of the Bethe algebra in various representations can be identified with the regular representations of algebras of functions on suitable algebraic varieties. This result allows us to prove a number of long standing conjectures. For example we show that the intersection of Schubert varieties for real values of parameters is always transversal and real.