

*Department of Mathematics,  
University of California, San Diego*

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## **Math 269 - Combinatorics Seminar**

**Prof. Adriano Garsia**

UCSD

## **The Shuffle Conjecture and the Polynomials of Angela Hicks**

### **Abstract:**

The Shuffle Conjecture gives a Combinatorial setting to the bi-graded Frobenius Characteristic of the Diagonal Harmonic Module of  $S_n$ . We report here on the progress in joint work with Angela Hicks in a three year effort to prove this conjecture. Angela Hicks reduced a combinatorial side of the problem to proving a deceptively simple property of a remarkable family of polynomials in a single variable  $x$  with coefficients polynomials in  $N[q]$ . In this lecture and possibly following ones we describe what remains to be done to resolve this decade old Algebraic Combinatorial problem.

**Tuesday, January 31, 2012**

**4:00 PM**

**AP&M 7421**

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