MATHEMATICS DEPARTMENT
North Carolina State University

ALGEBRA SEMINAR

Friday, August 31, 2007

Professor Drew Armstrong

University of Minnesota

Fuss–Catalan combinatorics of finite Coxeter groups

ABSTRACT: We will discuss "minimal factorizations" of a Coxeter element in a finite Coxeter group W. Using these, we will define a partially ordered set $NC(k, W)$ for each positive integer k. This poset is a generalization of the "noncrossing partitions," an object well-loved by combinatorialists. The poset $NC(k, W)$ is part of a family of algebraic objects (known as "Fuss–Catalan objects") which also includes the generalized cluster complex of Fomin and Reading. We will discuss the beautiful combinatorics related to these objects.

3:00 - 3:50 pm HA 335

Faculty and Students are invited to attend.