

MATHEMATICS DEPARTMENT
North Carolina State University

ALGEBRA SEMINAR

Wednesday, April 6, 2005

Professor Loek Helminck
NC State University

Computing a Poset Structure for Twisted
Involutions in Weyl Groups

ABSTRACT: Let (W, S) be a finite Coxeter system, and let θ be an involution that fixes a basis for the root system associated with W . We show that the set of θ -twisted involutions in W , $I_\theta = \{w \in W \mid \theta(w) = w^{-1}\}$, is in one to one correspondence with the set I_{id} of regular involutions in W . The elements of I_θ are characterized by sequences in S which induce an ordering called the Bruhat order. In particular, for irreducible root systems, the ascending Bruhat order of I_θ for nontrivial θ is identical to the descending Bruhat order of I_{id} .

2:30 - 3:20 pm HA 370

Faculty and Students are invited to attend.
Please note the change of time.