

MATHEMATICS DEPARTMENT
North Carolina State University

ALGEBRA SEMINAR

Friday, February 29, 2008

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Massachusetts Institute of Technology

Sortable elements – beyond finite type

ABSTRACT: In a finite Coxeter group W , Nathan Reading introduced “sortable elements” in order to relate two of the objects enumerated by W -Catalan numbers – the variables in the W -cluster algebra and the noncrossing partitions for W . Research started by Nathan Reading, and completed by he and I, gives very precise and simple connections between sortable elements, cluster algebras, non-crossing partitions and semi-invariants of quiver representations. More recently, we have found analogues of our results that hold for all Coxeter groups, not only the finite ones. I will explain this work, and describe some of the intriguing new phenomena which appear when we leave the finite case. I will not assume any knowledge of clusters, non-crossing partitions or quivers and I will try to assume only a vague familiarity with Coxeter groups.

4:00 - 4:50 pm HA 335

Faculty, students and post-docs are encouraged to attend.