

MATHEMATICS DEPARTMENT
North Carolina State University

ALGEBRA AND COMBINATORICS SEMINAR

Friday, September 5, 2008

Professor Kelli Talaska
University of Michigan

Pluecker coordinates associated with a planar
network

ABSTRACT: For a planar directed graph G , Postnikov's boundary measurement map sends positive weight functions on the edges of G onto the appropriate totally nonnegative Grassmann cell. We establish an explicit formula for Postnikov's map by expressing each Pluecker coordinate as a ratio of two combinatorially defined polynomials in the edge weights, with positive integer coefficients. In the non-planar setting, we show that a similar formula holds for special choices of Pluecker coordinates.

3:00 - 3:50 pm HA 335

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