1048-14-262 **David E Speyer*** (speyer@math.mit.edu), Department of Mathematics, Room 2-332, Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, MA 02138, and **Allen Knutson** (allenk@math.cornell.edu) and **Thomas Lam** (tfylam@math.harvard.edu).

The positroid stratification of the Grassmannian. Preliminary report.

George Lusztig and Alex Postnikov have studied those points on the Grassmannian all of whose Plücker coordinates are nonnegative, and found that they can be grouped into strata indexed by combinatorial objects called positroids. We follow these positroids into the rest of the Grassmannian and find that their Zariski closures form a elegant stratification which refines the classical stratification into Schubert cells. In this talk, we will describe the combinatorics of this stratification and give defining equations and Gröbner degenerations of these varieties. (Received February 09, 2009)