1106-13-2608 **Gwyneth R Whieldon*** (whieldon@hood.edu), Hood College, Department of Mathematics, 401 Rosemont Ave, Frederick, MD 21701, and **Jill Bigley Dunham** (jillbd@gmail.com). *Strongly Generic Artinian Monomial Ideals and Upper Intervals in the Weak Bruhat Order.* Preliminary report.

In this talk, we illustrate a connection between strongly generic, trivariate Artinian monomial ideals containing $\{x^{n+1}, y^{n+1}, z^{n+1}\}$ in their minimal generating set and upper intervals in the weak Bruhat order on permutations S_n. Considering monomial ideals that are strongly generic (given any pair of generating monomials m and m', if a variable divides both generators it must do so to different powers) and Artinian, we create a bijection between degree-minimal examples of such ideals $M_{\sigma,\tau}$ and pairs of permutations $\sigma, \tau \in S_n$ with complementary sets of inversions, e.g. permutations such that $\mathrm{Inv}(\sigma) \cup \mathrm{Inv}(\tau) = \{(i,j) : 1 \leq i < j \leq n\}$. For such an ideal $M_{\sigma,\tau}$, we produce the Buchberger graph $B(M_{\sigma,\tau})$ supporting the resolution of the monomial ideal $M_{\sigma,\tau}$ in terms of permutations σ, τ, and examine how inserting a new generator $m \mapsto M_{\sigma,\tau}$ affects this graph. (Received September 16, 2014)