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Interval pattern avoidance for K -orbit closures

Let $G = GL(n)$, B the subgroup of upper-triangular matrices, and $K = GL(p) \times GL(q)$ where $p + q = n$. The group K acts with finitely many orbits on the flag variety G/B , and one can study the closures of K -orbits just as one studies Schubert varieties, which are the closures of B -orbits. The set of K -orbits is parameterized by combinatorial objects known as (p, q) -clans. I will explain an older theorem relating interval pattern avoidance on permutations and singularities of Schubert varieties and how to extend this relationship to (p, q) -clans and K -orbit closures.

This is joint work with Ben Wyser and Alexander Yong.