

1108-05-574 **Brendan Pawlowski*** (bpawlows@umn.edu). *Catalan combinatorics in a class of positroids.*

Given a permutation w in S_n , the matroid of a generic $n \times 2n$ matrix whose non-zero entries in row i lie in columns $w(i)$ through $n + i$ is an example of a positroid. We enumerate the bases of such a positroid as a sum of certain products of Catalan numbers, these terms being indexed by the 123-avoiding permutations above w in Bruhat order. We give a similar sum formula for their Tutte polynomials. These are both avatars of a structural result building such a positroid out of matroids isomorphic to Catalan matroids. (Received January 20, 2015)