

1125-05-1502

J Tim Dwyer*, Dartmouth College, Dept. of Mathematics, 27 N. Main Street, Hanover, NH 03755. *Wilf-equivalences of non-overlapping permutations, the cluster method, and linear extensions of posets.* Preliminary report.

We will discuss applications of the cluster method of Goulden & Jackson to counting occurrences of a consecutive pattern π in permutations σ , that is substrings of σ that are order isomorphic to π . The cluster method has been used previously to find many examples of Wilf-equivalences of patterns as well as a very general sufficient condition. We use the relationship between the cluster method and linear extensions of posets to prove a necessary condition for two non-overlapping permutations to be Wilf-equivalent. (Received September 17, 2016)