Avoiding consecutive patterns in permutations

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Permutations that do not contain, as a factor (subword), a given set of permutations Π are studied. A new treatment of the case considered by Elizalde and Noye ($\Pi = \{12\cdots k\}$) is given. Some limits of the Wilf-Stanley type are considered. Some light is shed on an enumeration result of Kitaev and Mansour and its connections with the up-down permutations of André. Finally a Wilf-equivalence result on a much more general condition – where permutations of Π are allowed to occur a stipulated number of times - is given.

This is joint work with R. E. L. Aldred and D. J. McCaughan.