

Powers of permutations avoiding chains of patterns

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In a recent paper, Bóna and Smith define the notion of *strong avoidance*, in which a permutation and its square both avoid a given pattern. In this paper, we generalize this idea to what we call *chain avoidance*. We say that a permutation avoids a chain of patterns $(\tau_1 : \tau_2 : \cdots : \tau_k)$ if the i -th power of the permutation avoids the pattern τ_i . In this talk, we discuss some results and possible directions for future work.

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