

SHUFFLES OF PERMUTATIONS

Camillia Smith Barnes

Sweet Briar College

A shuffle of two words is an interlacing of the letters in the words such that these letters retain their original order when restricted to the given words. For example, 142356 and 415263 are shuffles of the words 123 and 456. In this talk, I will discuss enumeration of the distinct shuffles of permutations written as words and address recent progress on questions such as: how can we put a partial ordering on the symmetric group such that the number of distinct shuffles with the identity permutation is monotone increasing?