Ke Jin* (kejin@udel.edu). The Length of the Longest Common Subsequences of Two Independent Mallows Permutations. Preliminary report.

The Mallows measure is a probability measure on $S_n$ where the probability of a permutation $\pi$ is proportional to $q^{l(\pi)}$ with $q > 0$ being a parameter and $l(\pi)$ the number of inversions in $\pi$. We prove a weak law of large numbers for the length of the longest common subsequences of two independent random permutations drawn from the Mallows measure, when $q$ is a function of $n$ and $n(1-q)$ has limit in $\mathbb{R}$ as $n \to \infty$. (Received September 09, 2016)