Fluctuation bounds for the Mallows measure.

The Mallows measure on permutations gives a probability for \( \pi \in S_n \) proportional to \( q \)-to-the-power \( I(\pi) \) where \( I(\pi) \) is the number of inversions of \( \pi \): the number of pairs \( 1 \leq j < k \leq n \) such that \( \pi(j) > \pi(k) \). There has been much work on this model in the regime where \( q \) is close to 1 (the uniform case), and when \( q \) is farther away. I will describe simple, but not very precise, bounds when \( q \) is close to 1, so that \( 1 - q \) is \( O(1/n) \). (Received September 12, 2015)