1019-60-77   **Xia Chen*** (`xchen@math.utk.edu`), Department of Mathematics, University of Tennessee, Knoxville, TN 37996. *High moment asymptotics associated with large permutation groups.*

In estimating the tail probability, the moment estimation is one of the effective approaches, especially when the logarithmic generating function is hard to compute. This is often the case as we study the upper tail behaviors of the intersection local times or, the local times of the multi-parameter processes. In these situations, the moment can usually be written in the form of permutation sums. In this talk we discuss two examples, in which the moment asymptotics will be established and some new approaches of applying these moment asymptotics will be introduced. (Received August 07, 2006)