1005-60-201 **Xia Chen*** (`xchen@math.utk.edu`), Department of Mathematics, University of Tennessee, Knoxville, TN 37996. *Moment asymptotics related to permulation groups.*

The moment estimation is an important way of study the tail behaviors of local times, intersection local times and some other additive functionals. Very often, establishing the asymptotics for the high moment associated with a large permutation is a tough job. In this talk we propose a probabilistic approach to solve this combinatorial problem arising from probability. Part of the talk is based on a joint work with Peter Morters. (Received February 09, 2005)