RANDOM REARRANGEMENTS AND OPERATORS

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ABSTRACT. Let n be an integer and S_n the group of permutations of the set $\{1, 2, ..., n\}$ equipped with the Haar measure. We define the linear operators T_n as follows: $T_n x(\pi) = \sum_{i=1}^{n} x_{i,\pi(i)}$, for $\pi \in S_n$, where $x = \sum_{1 \le i,j \le n} x_{i,j} \chi E_{i,j}$, and $(E_{i,j})$ are disjoint subsets of [0,1], and $meas(E_{i,j}) = n^{-2}$. A criteria for the uniform boundedness of the operators T_n in rearrangement invariant spaces is presented. Joint work with S. Astashkin, F. Sukochev and D. Zanin.