1121-05-86 **Richard P. Stanley*** (`rstan@math.mit.edu`) and **Yinghui Wang**, Department of Mathematics, M.I.T., Cambridge, MA 02139. *Some aspects of (r,k)-parking functions.*

An (r,k)-*parking function* of length n may be defined as a sequence $(a_1,\dots,a_n)$ of positive integers whose increasing rearrangement $b_1 \le \cdots \le b_n$ satisfies $b_i \le k+(i-1)r$. The case $r=k=1$ corresponds to ordinary parking functions. If $F_n^{(r,k)}$ denotes the Frobenius characteristic of the action of the symmetric group $\mathfrak{S}_n$ on the set of all (r,k)-parking functions of length n, then we find a combinatorial interpretation of the coefficients of the power series $\left(\sum_{n\ge 0} F_n^{(r,1)} t^n\right)^k$ for any $k \in \mathbb{Z}$. For fixed r, we can use the symmetric functions $F_n^{(r,1)}$ to define a multiplicative basis for the ring Λ of symmetric functions. We also discuss some of the properties of this basis. (Received July 12, 2016)