1103-05-47 **Adriano M. Garsia*** (garsia@math.ucsd.edu), UC San Diego 9500 Gilman Dr. CA 920, La Jolla,, CA 92093, and **Emily Leven** (esergel@ucsd.edu), La Jolla,, CA 92093. *Cyclic Rearrangements of Parking Functions.* Preliminary report.

From the onset of the 1993 discovery of the Macdonald polynomial expansion of the bigraded Frobenius characteristic $\Phi_n[X;q,t]$ of Diagonal Harmonics, a variety of combinatorial and symmetric function puzzles arose over the following two decades . Our findinhgs here add one more puzzle to this unending saga. It was noticed in the early 90's that $\Phi_n[X;q,t]$ is mysteriously related to Lagrange inversion. More precisely it was shown that the specialization $\Phi_n[X;q,1]$ yields an *area* and Gessel Fundamental, Parking function way of expressing the solution of the q-analogue of Lagrange inversion while the generating function of the sequence $\left\{q^{\binom{n}{2}}\Phi_n[X;q,1/q]\right\}_{n\leq 1}$ gives a $q$-analogue of the formula expressing the solution of Lagrange inversion. Our discovery here is that $q^{\binom{n}{2}}\Phi_n[X;q,1/q]$ can be obtained as a cyclic rearrangement of $\Phi_n[X;q,1]$. Even more importantly, this phenomenon can be demonstrated to hold also in the rational rational Parking function case. (Received August 06, 2014)