1116-05-900 **Angela S Hicks*** (ashicks@stanford.edu). *Parking Functions, Sandpiles, and Gessel's Fundamental Basis.*

The more than decade old shuffle conjecture ties the bi-graded frobenius characteristic of the diagonal harmonics to two classical statistics (area and dinv) on parking functions, each with an associated quasisymmetric function. It has been previously shown that when we look at only single grading (i.e. only considering the simpler of the two statistics, area) the conjecture is true and the action on parking functions in this case has been given explicitly. A separate bijection (the "phi map") gives that these two statistics are equidistributed on the parking functions with pmaj and area, but the associated quasisymmetric function is not calculated in the same way as in the first sum. We explain how to calculate it and think about the associated action (in the singly graded case) in the context of a natural statistic on sandpile models. (Received September 15, 2015)