Angela Hicks* (ashicks@stanford.edu) and Emily Leven. A simpler formula for the number of diagonal inversions of an \((m,n)\)-Parking Function.

Recent results have placed the classical shuffle conjecture of Haglund et al. in a broader context of an infinite family of conjectures about parking functions in any rectangular lattice. In this context, the combinatorial side of the new conjectures has been defined using a complicated generalization of the dinv statistic which is composed of three parts and which is not obviously non-negative. Here we simplify the definition of dinv, prove that it is always non-negative, and give a spacial description of the statistic in the style of the classical case. Time permitting, we’ll discuss a result obtained using the simplified definition. (Received August 15, 2014)