1155-05-146 **Maria Monks Gillespie*** (maria.gillespie@colostate.edu). *Projective Embeddings of $\overline{M}_{0,n}$ and Parking Functions.*

The moduli space $\overline{M}_{0,n}$ may be embedded into the product of projective spaces $\mathbb{P}^1 \times \mathbb{P}^2 \times \cdots \times \mathbb{P}^{n-3}$, using a combination of the Kapranov map $|\psi_n| : \overline{M}_{0,n} \to \mathbb{P}^{n-3}$ and the forgetful maps $\pi_i : \overline{M}_{0,i} \to \overline{M}_{0,i-1}$. We give an explicit combinatorial formula for the multidegree of this embedding in terms of certain parking functions of height $n-3$. We use this combinatorial interpretation to show that the total degree of the embedding (thought of as the projectivization of its cone in $\mathbb{A}^2 \times \mathbb{A}^3 \cdots \times \mathbb{A}^{n-2}$) is equal to $(2(n-3)-1)!! = (2n-7)(2n-9)\cdots(5)(3)(1)$. As a consequence, we also obtain a new combinatorial interpretation for the odd double factorial. (Received January 08, 2020)