1134-05-316 **Jon McCammond**, **Hugh Thomas*** (hugh.ross.thomas@gmail.com) and **Nathan Williams**.
Fixed points of parking functions. Preliminary report.

We define an action of words in $\{0, 1, \ldots, m-1\}^n$ on $\mathbb{R}^m$, and use it to give a new characterization of rational parking functions: they are exactly those words whose action has at least one fixed point. From this viewpoint, we give an equivalent definition of Gorsky, Mazin, and Vazirani's zeta map on rational parking functions with m and n coprime, and we prove that it is invertible. (Received September 11, 2017)