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Jimmy Shan*, 1409 W Green, Urbana, IL 61801. *G-parking functions and minimal free resolutions of powers of linear forms.*

For a graph G , Postnikov-Shapiro [?] construct two ideals I_G and J_G . I_G is a monomial ideal and J_G is generated by powers of linear forms. They proved the equality of the Hilbert series and conjectured that the graded Betti numbers are equal. When $G = K_{n+1}^{l,k}$ is the complete graph on the vertices $[n+1] := \{0, 1, \dots, n\}$ with the edges $e_{i,j}$, $i, j \neq 0$, of multiplicity k and the edges $e_{0,i}$ of multiplicity l , for two non-negative integers k and l , they gave an explicit formula for the graded Betti numbers of I_G , which are conjecturally the same for J_G . We prove this conjecture. (Received August 07, 2013)