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Yan Gu, Tài Hà and **Joseph Skelton***, O-110 Martin Hall, Box 340975, School of
Mathematical & Statistical Sciences, Clemson, SC 29634. *Symbolic Powers of Cover Ideals and the
Koszul Property.*

For cover ideals we are motivated by the results of Villarreal showing that whiskering a graph results in a Cohen-Macaulay graph which, in turn, implies the cover ideal of the whiskered graph has linear resolution. Later it was shown that whiskering $S \subsetneq V(G)$ resulted in the cover ideal of the whiskered graph, $J(G \cup W(S))$, being sequentially Cohen-Macaulay and therefore Koszul. In '16 Fakhari introduced a graph construction G_k that corresponds to the symbolic power of the cover ideal $J(G)^{(k)}$. Using this construction and the whiskering technique we will establish conditions on S such that $J(G \cup W(S))^{(k)}$ is Koszul for all k .

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