1120-57-142 Derek Davies and Alexander Zupan* (zupan@unl.edu). The trunk of a knot and connected sums.
Loosely, the trunk of a knot $K$ in 3 -space is the greatest number of intersections of $K$ with any plane parallel to the $x y$-plane, minimized over all embeddings isotopic to $K$. If $K$ and $J$ are two distinct knots, it is straightforward to obtain an upper bound for the trunk of their connected sum simply by stacking embeddings with minimal trunk on top of each other; the trunk of the resulting embedding is the maximum of the trunks of $K$ and $J$. We prove that this upper bound is sharp, so that the trunk of the connected sum of two knots is the maximum of the trunks of its summands, resolving an open question of Makoto Ozawa. (Received February 19, 2016)

