Bounds and methods for $k$-planar crossing numbers.


Summary: The $k$-planar crossing number of a graph is the minimum number of crossings of its edges over all possible drawings of the graph in $k$ planes. We propose algorithms and methods for $k$-planar drawings of general graphs together with lower bound techniques. We give exact results for the $k$-planar crossing number of $K_{2k+1,q}$, for $k \geq 2$. We prove tight bounds for complete graphs.

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