

Lower bound of k -maximal digraph

Murong Xu, West Virginia University

Let $k > 0$ be an integer and let D be a simple digraph on $n \geq k + 1$ vertices. D is k -maximal if the arc-strong connectivity of D is at most k but adding any arc not in D will result in a subdigraph with arc-strong connectivity at least $k + 1$. In this talk, we investigate the lower bound of such digraphs.