



Figure 1: Scalability of proposed algorithms using $|V|$ as network size when (top) $n = 0.25|V|$ and (bottom) $n = 0.90|V|$ with (left) $0.25n$, (center) $0.50n$, and (right) $0.75n$ added edges. Results from k -Im and k -Im_v are condensed (only worst showed i.e., betweenness centrality for both). Similar observations when using $|E|$ as network size.