
MICHAEL MOLNAR, Toronto Metropolitan University
Limited Visibility Localization

We explore a variation of the localization game, where a set of cops seek to identify the location of an invisible robber using distance probes. We define the parameter $\zeta_1(G)$ to be the minimum number of cops required to win the game on a graph G , with probes only revealing 0, 1, or other. We evaluate $\zeta_1(G)$ on various graph classes, and give upper bounds for trees via their order, height, and number of leaf vertices. We show that there are trees T for which $\zeta_1(T)$ is unbounded. This is in stark contrast to the localization game, where $\zeta(T) \leq 2$ for all trees.