

Leaky Forcing for Unicyclic Graphs

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Zero forcing is a graph coloring process in which a set of initially blue vertices force the remaining vertices in the graph to be colored blue after repeated applications of a color change rule. Leaky forcing is a fault-tolerant variant of zero forcing in which some set of ℓ vertices, called leaks, are forbidden from forcing. The ℓ -leaky forcing number is the size of the smallest set of initially blue vertices for which the graph is successfully forced despite the placement of ℓ leaks. In this talk, we will characterize the ℓ -leaky forcing number for unicyclic graphs.

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