

PSD-Throttling on Trees

Michael S. Ross, Iowa State University

Positive Semidefinite Zero-Forcing (PSDZF) can be expressed as a coloring process on graphs, wherein one chooses an initial set of vertices B to color blue, and then iteratively applies a color change rule (CCR- Z_+) to propagate the blue coloring throughout the graph. Throttling of PSDZF seeks to minimize the sum of the cardinality of B and the number of iterations required to fully propagate through the graph when starting with B . This talk will present what is currently known about PSD-throttling on trees, with specific focus on finding the graphs with the largest PSD-throttling number across all trees of order n .

Keywords: zero-forcing, throttling