

DREXEL ANALYSIS SEMINAR

April 29, 2022

2-3 PM, Korman 245

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Title: Upper bounds for positive semidefinite zero forcing propagation time

Abstract: The tight upper bound $pt_+(G) \leq \text{ceiling}((|V(G)| - Z_+(G))/2)$ is established for the positive semidefinite propagation time of a graph in terms of its positive semidefinite zero forcing number. To prove this bound, we use the method of transforming one positive semidefinite zero forcing set into another and present an algorithm implementing this method. Consequences of the bound, including a tight Nordhaus–Gaddum sum upper bound on positive semidefinite propagation time, are established.