On the Rank of (Weighted) Graphs

Aimei Yu, Beijing Jiaotong University

A weighted graph G^w is a pair (G, w), where G is a simple graph and w is a weight function from $E(G)$ to the set of nonzero real numbers. If the weighted function w is from $E(G)$ to $\{1\}$, then $G^w = G$; if the weighted function w is from $E(G)$ to $\{+, -\}$ i.e., w is from $E(G)$ to $\{1, -1\}$, we call it a signed graph. The rank of G^w, denoted by $r(G^w)$, is the rank of the adjacency matrix of G^w. In this talk, we survey some results on the rank of (weighted) graphs.

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