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Extreme Eigenvalue of a Super Line Multigraph

Abstract for the Combinatorics Seminar 2010 November 30

The *super line multigraph* of index r of a graph is a line graph between r-element edge subsets. Bagga, Ellis, and Ferrero showed that its least eigenvalue is no less than 2C(|E|-1, r-1). I will generalize the definition to signed graphs and explain why the theorem generalizes only weakly.