Graph eigenvalues and graphical properties

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We will present some of the recent progresses in using graph eigenvalues to predict graphical properties. Cioaba and Wong in [LAA, 437 (2012) 630–647] posed a conjecture on using the second largest eigenvalue of a graph to describe the maximum number of edge-disjoint spanning trees. In [Electronic Journal of Linear Algebra, 34 (2018) 428–443] A. Abiad et al proposed an open problem suggesting to use the second largest eigenvalue of a graph to predict the connectivity of the graph. In this talk, we will report the recent progresses towards the above-mentioned conjecture and open problems, as well as other related studies on relating graph eigenvalues to graph structural properties.

QR code of the
seminar series