

Graph Limits and Spectral Extremal Problems of Graphs

Lele liu
Anhui University

Time: Oct 10th, 14:00 - 15:00

Zoom meeting ID: 817 0566 4050 Password: 121323

Link: <https://zoom.com.cn/j/81705664050>

Venue: Room 102, SCMS

Abstract:

Let $\lambda(G)$ be the largest eigenvalue of the adjacency matrix of a graph G , and \overline{G} be the complement of G . Aouchiche, Bell, Cvetković et al. conjectured that the graph on n vertices maximizing $\lambda(G) + \lambda(\overline{G})$ is the join of a clique and an independent set, with $\lfloor n/3 \rfloor$ and $\lceil 2n/3 \rceil$ (also $\lceil n/3 \rceil$ and $\lfloor 2n/3 \rfloor$ if $n \equiv 2 \pmod{3}$) vertices, respectively. We resolve this conjecture for sufficiently large n using the theory of graph limits. In this talk, we will show how to use graph limits method to confirm this conjecture.