

School of Mathematics & Statistics

Colloquium

On the uniqueness of the Laplacian spectra of coalescence of complete graphs

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5 March 2019
15:30
Room 306 Alan Turing

Abstract:

Using coalescence and cones, this study defines three types of graphs formed by amalgamating vertices of disjoint unions of complete graphs. The three types include the cone over a disjoint union of two complete graphs (C1), the cone over a disjoint union of k complete graphs (C2), and the l cone over a disjoint union of two complete graphs (C3). Coalescence of complete graphs (C1, C2) and the l cone (C3) are determined by their Laplacian spectra, a novel finding. Their Laplacian spectra reveal the size of the vertex cutset. Applications include the analysis of corporate networks, where individuals form coalescence of complete graphs through joint membership of two or more company boards.

Tea and coffee will be available in the common area from 15:00