VCU Discrete Mathematics Seminar

7 theorems in extremal spectral graph theory

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Thursday, Oct. 26
1:00-1:50
4145 Harris Hall

Theorems in extremal graph theory ask to optimize a combinatorial invariant over a fixed family of graphs. In this talk, we discuss how to prove several theorems in this area where the graph invariant in question is a function of the eigenvalues or eigenvectors of the adjacency matrix of the graph.

A representative result is a proof of a conjecture of Boots and Royle from 1991: the planar graph of maximum spectral radius (of its adjacency matrix) is the join of an edge and a path.

This is joint work with Josh Tobin.

For the DM seminar schedule, see:

`http://www.people.vcu.edu/~dcranston/DM-seminar`