

COLLOQUIUM

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An introduction to the normalized Laplacian

The logo consists of a central orange circle containing the text "Mathematics and Statistics" in bold black font. This circle is set against a background of four blue squares arranged in a 2x2 grid, with the circle overlapping the center of the squares.

**Mathematics
and
Statistics**

Date: Friday, Feb 6, 2015

Time: 3:30 - 4:30 PM

Room: RIC 209

Abstract: We can store the data about a graph using a matrix, and an understanding of that matrix can in turn help us to understand the properties of the graph. There are many possible matrices that can be used, each with its own strength and limitations. We will give an overview of the most popular matrices and then focus on some properties of the normalized Laplacian. In particular we will look at edge discrepancy and ways to form cospectral graphs.