Mathematics Graduate Seminar

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1:00p.m., HH-3017

... and Justice for All: Vertex-equalized edge-colourings
and other fair edge-colourings

Abstract:

A graph is a mathematical structure used to model incidence relations between mathematical objects (think of network systems). A graph consists of vertices (points/nodes) and edges (lines/links) that connect vertices to each other.

An edge-colouring of a graph G is an assignment of colours to the edges of G (exactly one colour to each edge).

In this talk we will review some fairness notions imposed on edge-colourings that already exist in the literature of edge-colourings, and we will introduce a new such notion called vertex-equalized edge-colouring. We will prove an existence result on vertex-equalized edge-colourings.