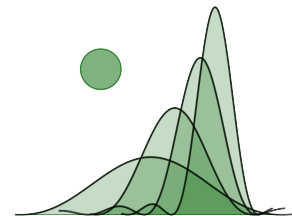




Colloquium Series

Department of Mathematics and Statistics



Prof. Emily Heath

Cal Poly Pomona

Proper rainbow saturation numbers of graphs

Abstract: In extremal graph theory, we often ask questions of the form: what is the maximum or minimum number of edges in a graph with a certain property? In this talk, we will consider the problem of minimizing the number of edges in a graph on n vertices with the following coloring property: the graph G should be “properly rainbow- H saturated” for a fixed subgraph H , meaning that there is a proper edge-coloring of G which contains no rainbow copy of H , but adding any edge to G will make such a rainbow H -free coloring impossible. I will give examples of properly rainbow- H saturated graphs and discuss new results on this problem where H is a path, cycle, or complete graph.

Keywords: Extremal graph theory, a coloring property, properly rainbow- H saturated graphs, new results.

Wednesday, Nov. 6, 1:05 – 1:50 pm in 4-2-314