
MAYA STEIN,

Partitions into monochromatic subgraphs

The central problem in monochromatic subgraph partitions is the following: given a complete graph on n vertices whose edges are coloured with r colours, the goal is to find a small set of vertex-disjoint monochromatic cycles which together cover all the vertices. There are variants substituting complete graphs with other host graphs, cycles with other classes of graphs, graphs with hypergraphs, and other. The problem goes back to work by Gyarfás from the late 1960's, but the core problem as well as its variants have attracted much interest during the past decade. In this talk, we will give an overview of the most important results and methods of the area, and then discuss some recent results for hypergraphs, which are joint work with Bustamante and Han, and with Bustamante.