
TONATIUH MATOS WIEDERHOLD, University of Toronto

Graphs of constant balancing number

Given any graph G , there's a large enough complete graph such that every finite colouring of its edges produces a monochromatic copy of G . This fact is called Ramsey's theorem. If instead of a monochromatic copy of G we try to find a copy with say half of the edges of each colour, then the conclusion is only true under certain conditions.

Several interesting families of graphs have been classified regarding these properties, which we discuss in the talk. We also exhibit variations, some new results and a few open problems. The topic will be framed in a general mathematical context spanning extremal graph theory, zero-sum combinatorics and topology.