

Department of Mathematics

Mathematics Colloquium



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Restricted subgraphs of edge-colored graphs and applications

A properly edge-colored graph is a graph with a coloring of its edges such that no vertex is incident to two or more edges of the same color. A subgraph is called rainbow if all its edges have different colors. The problem of finding rainbow subgraphs or other restricted structures in edge-colored graphs has a long history, dating back to Euler's work on Latin squares. It has also proven to be a powerful method for studying several well-known questions.

In this lecture, we will provide a brief introduction to this topic, discuss several questions in this area, and demonstrate their applications to problems in graph decomposition, additive combinatorics, theoretical computer science, and coding theory.

November 20, 2024 15:30 – 16:30

HS 11, Architekturgebäde Technikerstraße 21b