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Induced Subgraphs and Coloring

What causes a graph to have high chromatic number? One reason is that the graph may contain a large set of pairwise adjacent vertices (called a "clique"), but what can be said if that is not the case? Around 1985 Andras Gyfars made three conjectures about structures that must be present in a graph with large chromatic number all of whose cliques have bounded size. Recently we proved the strongest of these conjectures, that implies the other two. In this talk we will discuss some of the proof ideas, and related problems and theorems.