

Vertex covers by monochromatic pieces - results and problems

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If the edges of a complete graph are colored with red and blue then its vertices can be partitioned into vertex sets of a red and a blue path. The talk is a survey of old and recent results and problems similar to this simple statement. In particular, one may consider many colors instead of two, cover instead of partition, non-complete graphs instead of complete ones, hypergraphs instead of graphs, other subgraphs (cycles, matchings, connected subgraphs) instead of paths, infinite graphs instead of finite ones.