

Chromatic-Partition Number in Graphs

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Chromatic-partition is a storage/scheduling problem which, in addition to the standard restrictions involving pairs of elements that cannot be placed together, considers sets of elements that must be placed together. A set D is a colored-independent set if, for each color class V_i , $D \cap V_i = V_i$ or $D \cap V_i = \emptyset$. If S is a partition of $V(G)$, then $\chi(G; S)$ is the minimum cardinality of disjoint subsets such that each subset is a colored-independent set. The chromatic-partition number, $\chi_{PRT}(G)$, is the maximum cardinality over all $\chi(G; S)$. This talk introduces this parameter and its connections with colored-independence numbers and the achromatic number.

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