

P. Hell, J. Nešetřil, A. Raspaud, E. Sopena
Three-and-more set theorems

Comment.Math.Univ.Carolinae 41,4 (2000) 793-801.

Abstract: In this paper we generalize classical 3-set theorem related to stable partitions of arbitrary mappings due to Erdős-de Bruijn, Katětov and Kasteleyn. We consider a structural generalization of this result to partitions preserving sets of inequalities and characterize all finite sets of such inequalities which can be preserved by a “small” coloring. These results are also related to graph homomorphisms and (oriented) colorings.

Keywords: relation, compactness

AMS Subject Classification: 05C05, 05C99