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*Selectivity of hypergraphs.* (In English)

**Finite and infinite sets, 6th Hung. Combin. Colloq., Eger/Hung. 1981, Vol. I, Colloq. Math. Soc. János Bolyai 37, No.1, 265-284 (1984).**

[For the entire collection see Zbl 559.00001.]

The concept of a selective hypergraph is introduced. Some results concerning the smallest number of edges needed for a selective  $k$ -graph are provided. They are similar to those for the B-property. It is shown that the minimal chromatic number of a selective graph  $H$  equals  $\chi(H) = (\chi(G) - 1)(|V(G)| - 1) + 1$ . A construction of selective hypergraphs without short cycles is also given. The paper ends with the following result. For each  $K$ -graph  $G$  there exists a selective  $k$ -graph  $H$  with  $\chi(H)$  given by the formula above. Besides, if the edges  $e_1, \dots, e_q$  form a cycle in  $H$  of length at most  $p \geq 2$  then there exists a subgraph  $G'$  of  $H$  isomorphic to  $G$ , containing the edges  $e_1, \dots, e_q$ .

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Classification:

05C65 Hypergraphs

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selective hypergraph; selective  $k$ -graph; chromatic number