1077-05-1874 Paul Horn\* (phorn@math.harvard.edu), Václav Koubek and Vojtěch Rödl. Edge disjoint isomorphic subgraphs in uniform hypergraphs.

We show that any k-uniform hypergraph with n edges contains two edge disjoint subgraphs of size  $\tilde{\Omega}(n^{2/(k+1)})$  for k=4,5 and 6. This is best possible up to a logarithmic factor due to a upper bound construction of Erdős, Pach, and Pyber who show there exist k-uniform hypergraphs with n edges and with no two edge disjoint isomorphic subgraphs with size larger than  $\tilde{O}(n^{2/(k+1)})$ . Furthermore, this extends results Erdős, Pach and Pyber who also established the lower bound for k=2 (eg. for graphs), and of Gould and Rödl who established the result for k=3. (Received September 21, 2011)