1073-05-73 **Paul Horn*** (phorn@mathcs.emory.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 isomorphic, edge disjoint subgraphs of size $\tilde{\Omega}(n^{2/(k+1)})$ for $k = 4, 5$ and 6. Our result 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 $\tilde{O}(n^{2/(k+1)})$. This furthermore extends earlier results of Erdős, Pach and Pyber who also established the lower bound for $k = 2$ (ie. for graphs) and of Gould and Rödl who established the lower bound for $k = 3$. (Received July 26, 2011)