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Tao Jiang* (jiangt@miamioh.edu), Department of Mathematics, Miami University, Oxford, OH 45056. *Some Hypergraph Turan results*. Preliminary report.

Given an r -graph H , the Turan number $ex(n, H)$ of H is the maximum size of an r -graph on n vertices that does not contain H as a subgraph. We focus on graphs with $ex(n, H)$ on the order of $O(n^{r-1})$. For $r = 2$, the only graphs H with Turan number on the order of $O(n)$ are forests. However for hypergraphs (i.e. $r \geq 3$), there are many graphs H with Turan number on the order of $O(n^{r-1})$ that are not hypertrees. We study the Turan numbers of some of these graphs as well as a class of hypertrees called clusters. Our work continues prior work by Frankl and Füredi, Mubayi and Verstraëte, and Pikhurko and Verstraëte. Some of the work are joint with D. Irwin and X. Liu. (Received January 18, 2015)