Han, Jie; Zhao, Yi

Minimum vertex degree threshold for $C_3^4$-tiling.
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Summary: We prove that the vertex degree threshold for tiling $C_3^4$ (the 3-uniform hypergraph with four vertices and two triples) in a 3-uniform hypergraph on $n \in 4\mathbb{N}$ vertices is $\left(\frac{n-1}{2}\right) - \left(\frac{3}{4}n\right) + \frac{3}{8}n + c$, where $c = 1$ if $n \in 8\mathbb{N}$ and $c = -\frac{1}{2}$ otherwise. This result is best possible, and is one of the first results on vertex degree conditions for hypergraph tiling.

Keywords: graph packing; hypergraph; absorbing method; regularity lemma
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