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SPANNING TIGHT COMPONENTS IN 4-UNIFORM HYPERGRAPHS

A subgraph G of a hypergraph H is *spanning* if every vertex of H lies in an edge of G , and is *tightly connected* if there is a tight walk between any two edges of G . We prove that every n -vertex 4-uniform hypergraph with minimum codegree at least $\lfloor n/4 \rfloor$ has a spanning tight component. This is tight, and settles the 4-uniform case of a conjecture of Illingworth, Lang, Mütters, Parczyk, and Sgueglia.

This is joint work with Francesco Di Braccio, Joanna Lada, Mihir Neve, and Lu-Ming Zhang.