

Cliques in sparse hypergraphs

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A partial Steiner (k, ℓ) -system is k -uniform hypergraph \mathcal{G} with the property that every ℓ -element subset of V is contained in at most one edge of \mathcal{G} . In this talk we show that for given k, ℓ and t there exists a partial Steiner (k, ℓ) -system such that whenever an ℓ -element subset from every edge is chosen, the resulting ℓ -uniform hypergraph contains a clique of size t .

This is joint work with František Franěk and Vojtěch Rödl.