

Counting spanning subgraphs in dense hypergraphs

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In the 1990s, Bollobás and Bondy posed the question of estimating the number of distinct Hamilton cycles in graphs with large minimum degree. This question was solved by Cuckler and Kahn in 2009, who found precise estimates on both the number of Hamilton cycles and perfect matchings in graphs with large minimum degree. In recent years, there have been some efforts to extend this question in uniform hypergraphs. In this talk, we will introduce a technique that allows us to estimate the number of distinct copies of some families of spanning hypergraphs in k -graphs with large minimum degrees. In particular, we can estimate the number of distinct Hamilton ℓ -cycles in hypergraphs with minimum codegree above the threshold for Hamiltonicity. This is joint work with Richard Montgomery.