



آگهی سخنرانی

Embedding Factorizations of Complete Uniform Hypergraphs

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چکیده

We consider when a given r -factorization of the complete uniform hypergraph on m vertices K_m^h can be extended to an s -factorization of K_n^h . The case of $r = s = 1$ was first posed by Cameron in terms of parallelisms, and solved by Häagkvist and Hellgren. We extend these results, which themselves can be seen as extensions of Baranyai's Theorem. For $r = s$, we show that the "obvious" necessary conditions, together with the condition that $\gcd(m, n, h) = \gcd(n, h)$ are sufficient. For $r < s$ we show that the obvious necessary conditions, augmented by $\gcd(m, n, h) = \gcd(n, h)$, $n \geq 2m$, and $1 \leq \frac{s}{r} \leq \frac{m}{k} [1 - \binom{m-k}{h} / \binom{m}{h}]$ are sufficient, where $k = \gcd(m, n, h)$. This is joint work with Mike Newman.

زمان: پنجشنبه ۹۵/۹/۲۵، ساعت ۱۰:۳۰ الی ۱۱:۳۰

مکان: میدان نیاوران، پژوهشگاه دانشهای بنیادی

سالن شماره ۲