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*Extremal Problems for Hypergraphs*

For a $k$-uniform hypergraph $F$ let $\text{ex}(n,F)$ be the maximum number of edges of a $k$-uniform $n$-vertex hypergraph $H$ which contains no copy of $F$. Determining or estimating $\text{ex}(n,F)$ is a classical problem in extremal combinatorics. While for graphs this problem is well understood, little is known for $k$-uniform hypergraphs when $k>2$. We consider a variant of the problem where the large hypergraph $H$ enjoys additional hereditary density conditions. Our recent work shows that the regularity method developed by Gowers and Roedl is a suitable tool for extremal problems of this type.

**Date:** Friday, November 30, 2018

**Time:** 3:00–3:50 pm

**Location:** Alavi Commons (6625 Everett Tower)
Main Campus
Western Michigan University

Refreshments will be served beginning at 2:50 pm.

For more information about the Department Colloquium Series visit [wmich.edu/math/colloquium](http://wmich.edu/math/colloquium). Email inquiries may be directed to [gene.freudenburg@wmich.edu](mailto:gene.freudenburg@wmich.edu).