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An extremal problem in vector spaces over finite fields.

What is the largest number of bases contained in n points in the r -dimensional vector space over \mathbb{F}_q ?

In this talk I provide asymptotic results, exact results for some values of n , and upper and lower bounds. Along the way I will introduce an interesting question on uniform hypergraphs, with connections to a theorem of Turán.

This is joint work with Brett Stevens.