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Interpolation Sets

A Sidon set E is a set with the property that we can interpolate every bounded function on E by a Fourier transform of a measure. In this talk we will discuss the decomposition of Sidon sets into even more special sets. Pisier and Bourgain showed that Sidon sets are proportional quasi-independent. We will show Sidon sets can be proportional k-independent for all $k \ge 1$ for a torsion-free discrete abelian group. Beased on that we will show Sidon sets are proportional Sidon with arbitrarily small Sidon constants.