

## **An extremal problem concerning projective cubes**

In the Boolean lattice, Sperner's, Erdos's, Kleitman's and Samotij's theorems state that families that do not contain many chains must have a very specific layered structure. We show that if instead of  $\mathbb{Z}_2^n$  we work in  $\mathbb{Z}_{2^n}$ , some analogous statements hold if one replaces the word  $k$ -chain by projective cube of dimension  $2^{k-1}$ .

This is joint work with Jason Long.