Speaker: Elizabeth Wilmer

Title: Combinatorics in the exterior algebra and the Bollobás Two Families Theorem

Abstract: We investigate the combinatorial structure of subspaces of the exterior algebra of a finite-dimensional real vector space, working in parallel with the extremal combinatorics of hypergraphs. As an application, we prove a new extension of the classical Two Families Theorem of Bollobás.

This work is joint with Alex Scott.