Algorithmic Applications of Two Families Theorem

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The Two-Families Theorem of Bollobás for extremal set systems and its generalization to subspaces of a vector space of Lovász are the corner-stones in extremal set theory with numerous applications in graph and hypergraph theory, combinatorial geometry and theoretical computer science. We refer to Gil Kalai’s blog

http://gilkalai.wordpress.com/2008/12/25/lovaszs-two-families-theorem

for more information on these theorems. In this talk we will survey these two results and show its recent algorithmic applications in the domain of parameterized and exact algorithms.