

# Discrete Mathematics & Combinatorics

Shifting techniques in the finite set systems

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Many important results in the extremal combinatorics of finite set systems, including the well known theorems by Turan, Erdos-Ko-Rado, Kruskal-Katona and Macaulay, are obtained by using combinatorial shifting techniques. Although the use of combinatorial shifting is not restricted to this circle of problems, there are more subtle problems that require a more powerful shifting technique. In this talk, I will recall the "generic" algebraic shifting that was introduced by Gil Kalai in 80's. Some new results that use this technique will be presented.

This is joint work with Karim Adiprasito and Anders Björner.