An Upper Bound for Weak B_k–Sets
(joint work with Tomasz Schoen)

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Abstract

We prove that if $A \subseteq \{1, 2, \ldots, N\}$ does not contain any solution to the equation $x_1 + \ldots + x_k = y_1 + \ldots + y_k$ with distinct $x_1, \ldots, x_k, y_1, \ldots, y_k \in A$, then $|A| \ll k^{3/2} N^{1/k}$.