Yufei Zhao* (yufeiz@mit.edu), 3 Ames St, \#10, Cambridge, MA 02142. More Sums than Differences Sets and Beyond.
A more sums than differences (MSTD) set is a finite subset $S$ of integers such that $|S+S|>|S-S|$. We present some new results on MSTD subsets of $\{0,1, \ldots, n\}$ that address the following two questions: (1) what proportion of the subsets are MSTD sets? (2) what does a typical MSTD set look like?

In general, our results work for any specification on the number of missing sums and the number of missing differences of $S$, with MSTD sets being a special case. (Received August 31, 2009)

