1046-11-761 **Daniel C Scheinerman*** (daniel_scheinerman@brown.edu), 69 Brown Street, Brown University Box 2088, Providence, RI 02912, and **Steven J Miller**. *Explicit constructions of infinite families of MSTD sets.*

We give explicit, infinite families of MSTD (more sums than differences) sets. There are enough of these sets to prove that there exists a constant C such that at least C/r^4 of the 2^r subsets of $\{1,\dots,r\}$ are MSTD sets; thus our family is significantly denser than previous constructions (whose densities are typically at most $f(r)/2^{r/2}$ for some polynomial $f(r)$). (Received September 11, 2008)