

StM: Parity function

$$P(x, k) = \begin{cases} (-1)^k & 2i|k| \leq x \leq (2i+1)|k| - 1 \\ -(-1)^k & (2i-1)|k| \leq x \leq 2i|k| - 1 \\ 0 & k = 0 \end{cases}$$