# Implementing in a Stream

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- ullet We need a way to define the matrix E that preserves the properties we want
  - We cannot use independent  $\mathbf{e}_1, \dots, \mathbf{e}_n \Omega(n)$  space is required
  - Idea: Use a pseudorandom string to generate  $\mathbf{e}_1, \dots, \mathbf{e}_n$
  - Andoni uses the PRG of Nisan and Zuckerman
    - Slow to retrieve an arbitrary  $e_i$

# Preserving Properties via Nisan's PRG