Derandomizing with PRG

- Indyk '00 showed a black-box way to decrease memory for such a construction using PRGs for small space algorithms

- Output distribution changes by a small amount

- Consider the **one-pass** algorithm parameterized by x which takes as input a random string with n blocks

- Initialize $sk \leftarrow 0$

- Use r_i to generate S_{*i}

- Update sk $\leftarrow$ sk $+ x_i \cdot S_{*i}$


r_1
r_2
r_n

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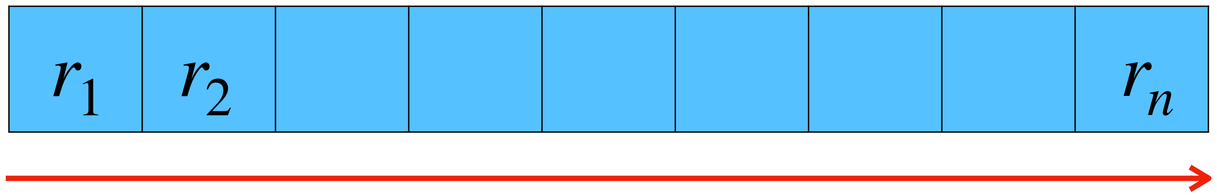

Nisan's PRG