



**Main Idea** Derandomize

- We don't need to preserve the distribution of  $Sx$

- Preserves only the properties of  $Sx$  we need

• Small space algorithm never outputs these properties

• Can use PRGs that fold smaller space algorithms

• Fasten has function evaluation!

# Main Ideas to Derandomize

- We don't need to preserve the distribution of  $Sx$
- Preserve only the properties of  $Sx$  we need
- Small space algorithm now only outputs these properties
  - Can use PRGs that fool smaller space algorithms
  - Faster hash function evaluation!



# Next Steps : Streaming