

Mainideas

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

- Preserve only the properties of Sx we need

• Small space algorithms only output the properties

• Can use PRGs that form pseudorandom algorithms

• **Fasten has function evaluation!**

• Increase branching factor

• Fewer hash functions to evaluate



Main Ideas

- 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!
- Increase branching factor
 - Fewer hash functions to evaluate

Query lower bounds for LRA

with David Woodruff [NeurIPS '23]