

Our Results

Can we obtain sparse optimal streaming algorithms with fast update times?

• **Yes! For many problems.**

Review

- Use PRGs to define the sketching matrix S

Show PRGs need to fool algorithms faster than earlier analyses

- Define a PRG with larger branching factor to retrieve S_{*j} quicker



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- Can we obtain space optimal streaming algorithms with fast update times?
 - **Yes! For many problems.**
- Preview
 - Use PRGs to define the sketching matrix S
 - Show PRGs need to fool smaller space algorithms than earlier analyses
 - Define a PRG with larger branching factor to retrieve S_{*i} quicker

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