

How is Sketching Useful?

$A(1)$



Server 1

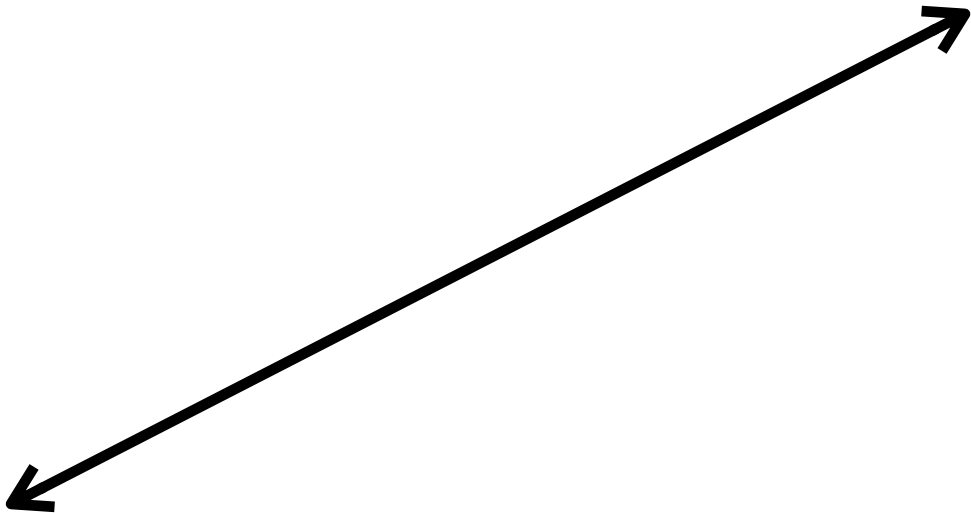
$A(2)$

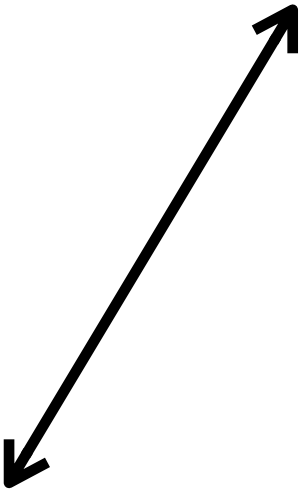


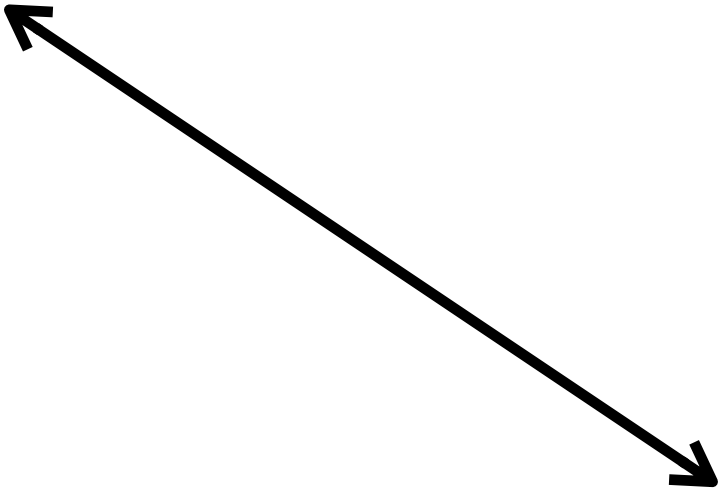
Server 2

Coordinator











$$= A(1) + \dots + A(s)$$

S

S

$A(s)$



Server s

S

$sk(A_1)$

sk(A_2)

sk(A_s)

$\text{sk}(A)$

$=$

$\text{sk}(A_1)$

$+$

$\text{sk}(A_2)$

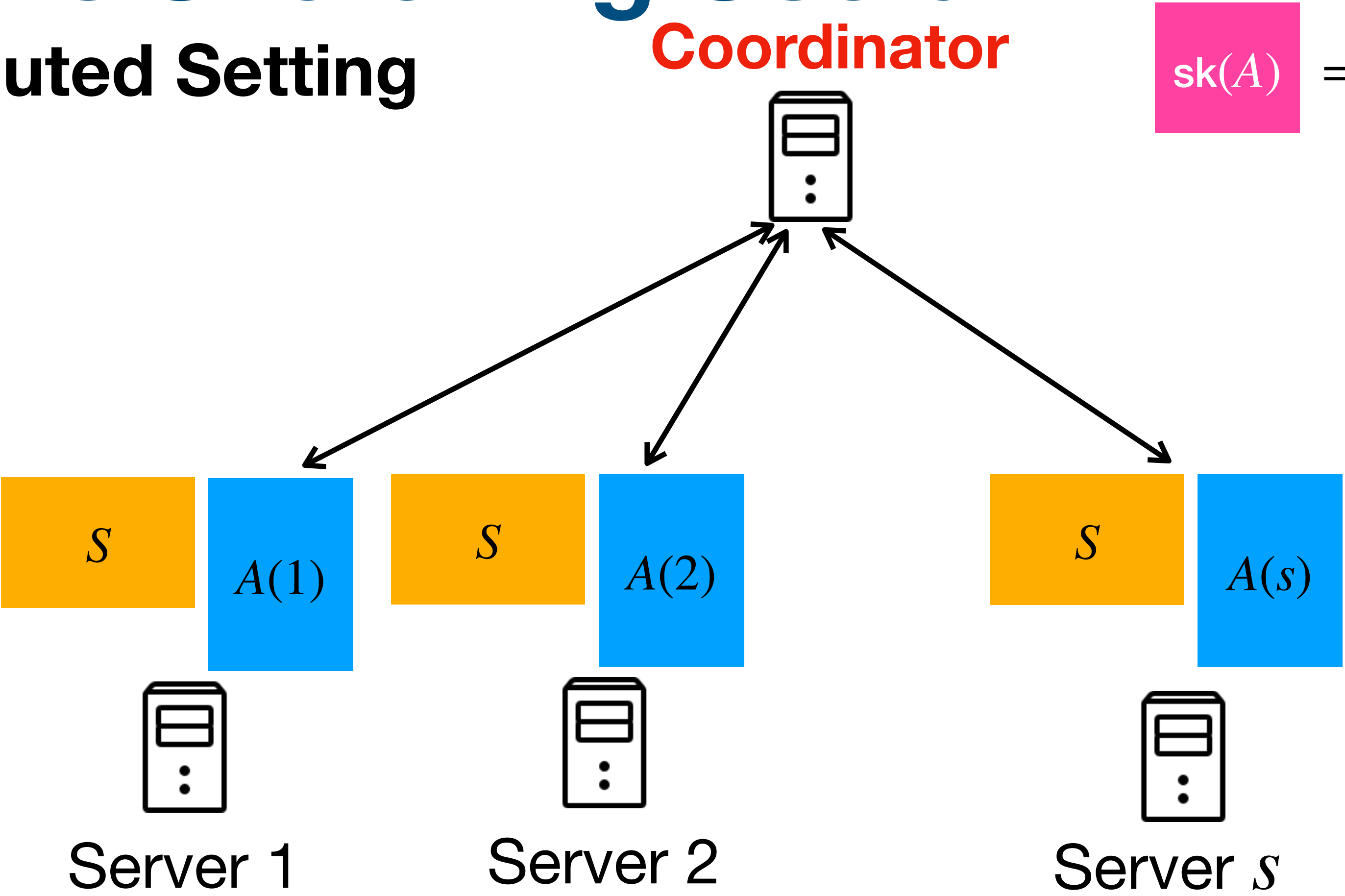
$+\dots+$

$\text{sk}(A_s)$

Distributed Setting

How is Sketching Useful?

Distributed Setting



$$\text{sk}(A) = \text{sk}(A_1) + \text{sk}(A_2) + \dots + \text{sk}(A_s)$$

$$A = A(1) + \dots + A(s)$$

Recap of Sketching