Distributed Setting

- Can the **Coordinator** compute a solution without a lot of communication?

$A(1)$

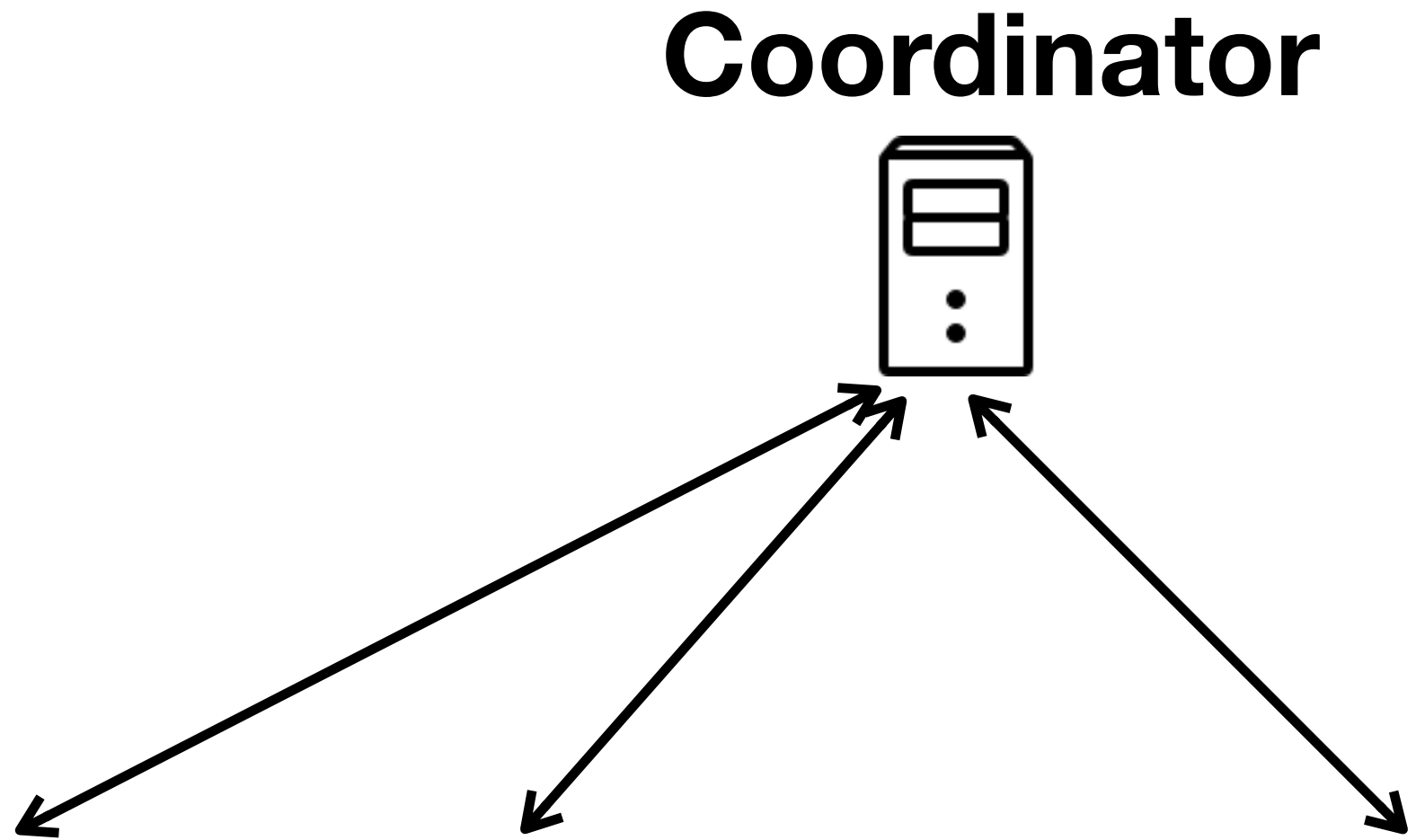
Server 1

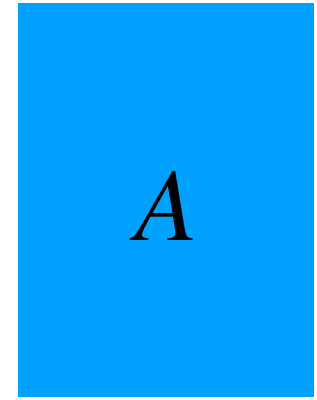
$A(2)$

Server 2

$A(s)$

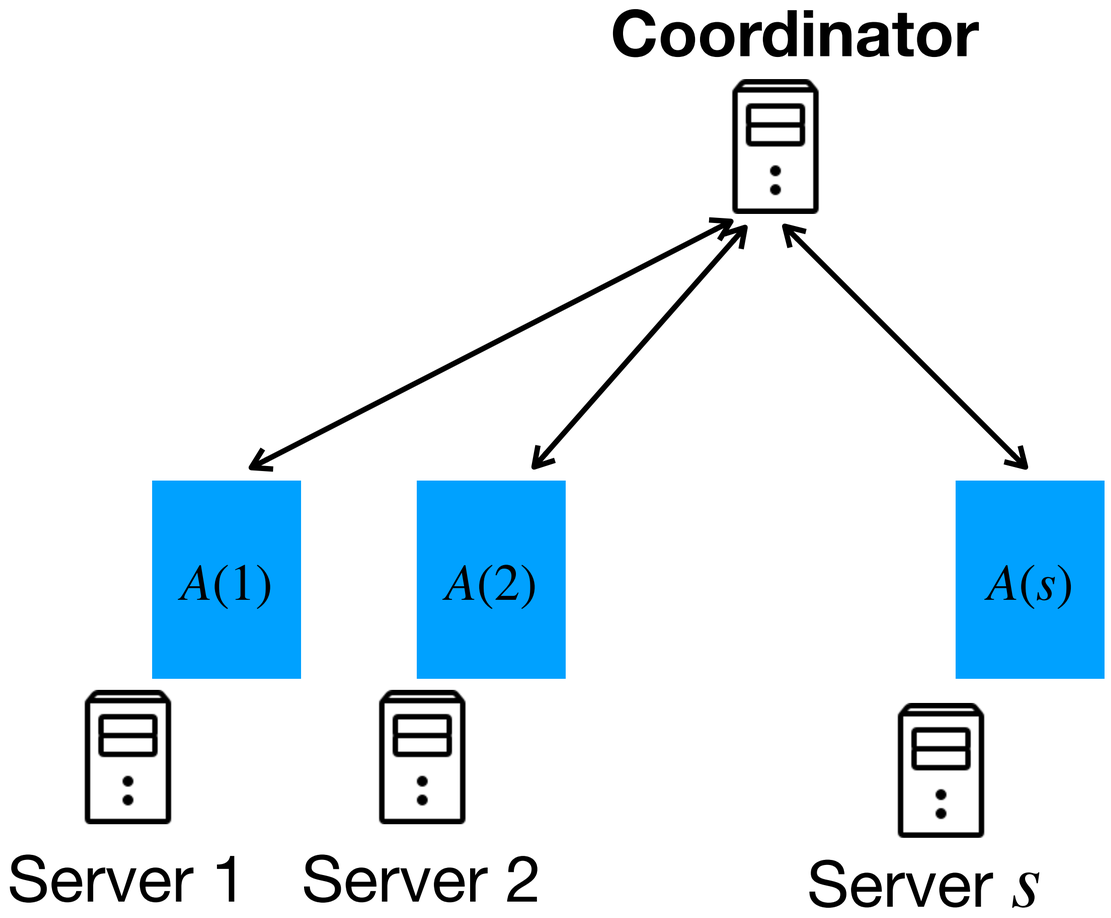
Server s


Coordinator



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

Distributed Setting



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

- Can the **Coordinator** compute a solution without a lot of communication?

Challenges

- Classical
    - Algorithms that are fast
- Streaming
    - Algorithms that work in memory-constrained settings
- Distributed
    - Algorithms that use low amount of communication