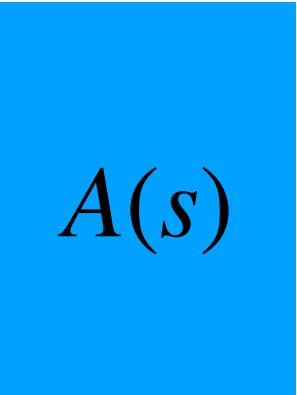
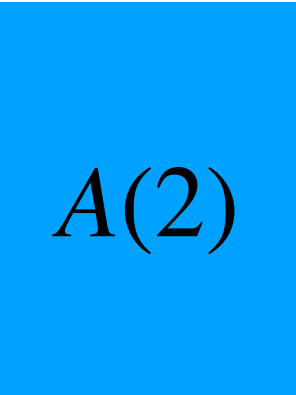
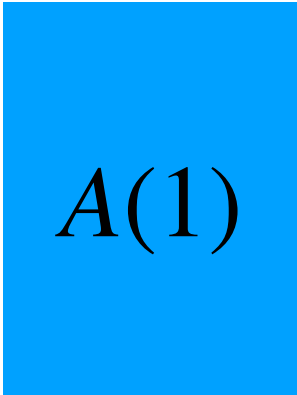
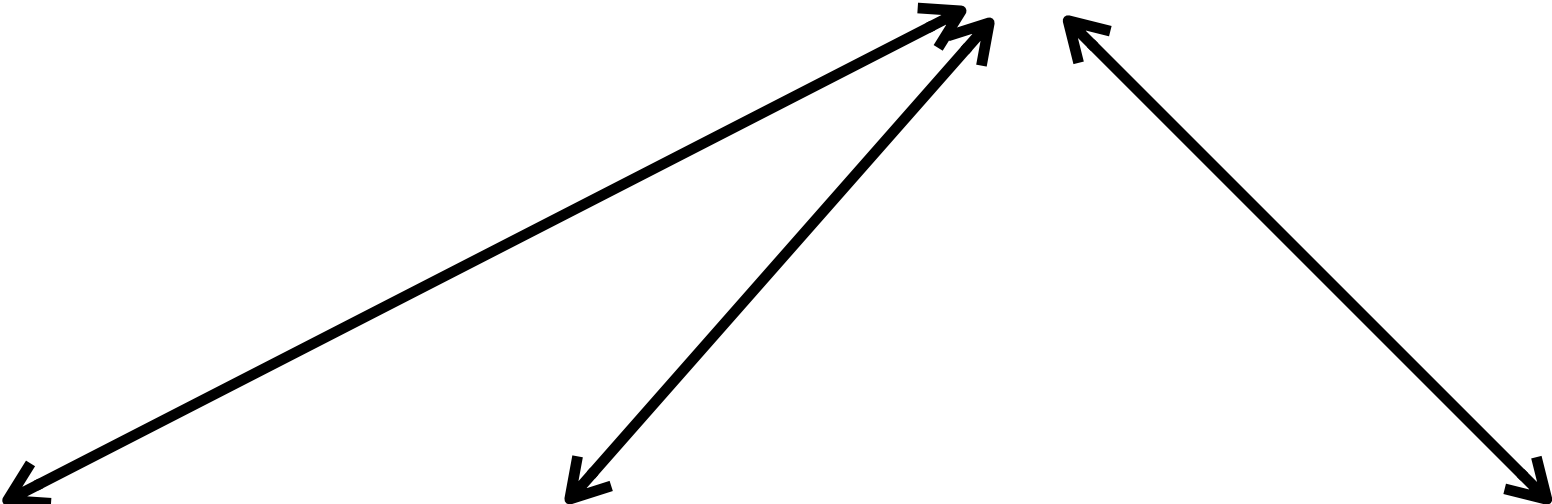




Distributed Setting

# Coordinator



Server 1



Server 2



Server  $s$

$A$

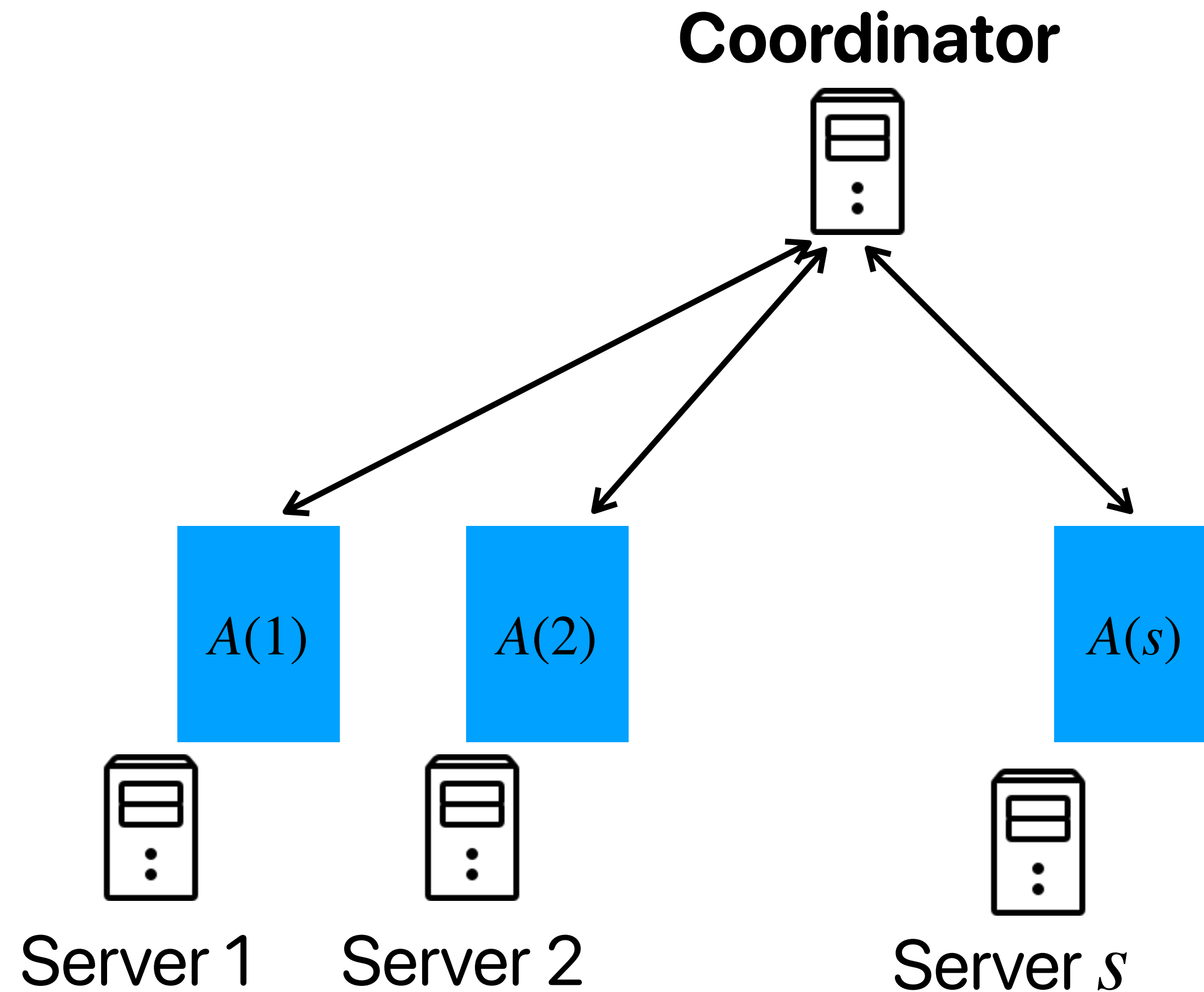
$$= A(1) + \cdots + A(s)$$



- General point-to-point communication with twice the communication +  $\log_2 s$  bits

- We also study arbitrary graph topologies in the thesis

# Distributed Setting



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

- General point-to-point communication with twice the communication +  $\log_2 s$  bits
- We also study arbitrary graph topologies in the thesis



# Turnstile Streaming



$x$

Updates:  $(i_1, \Delta_1)$   $(i_2, \Delta_2)$   $\dots$   $(i_m, \Delta_m)$