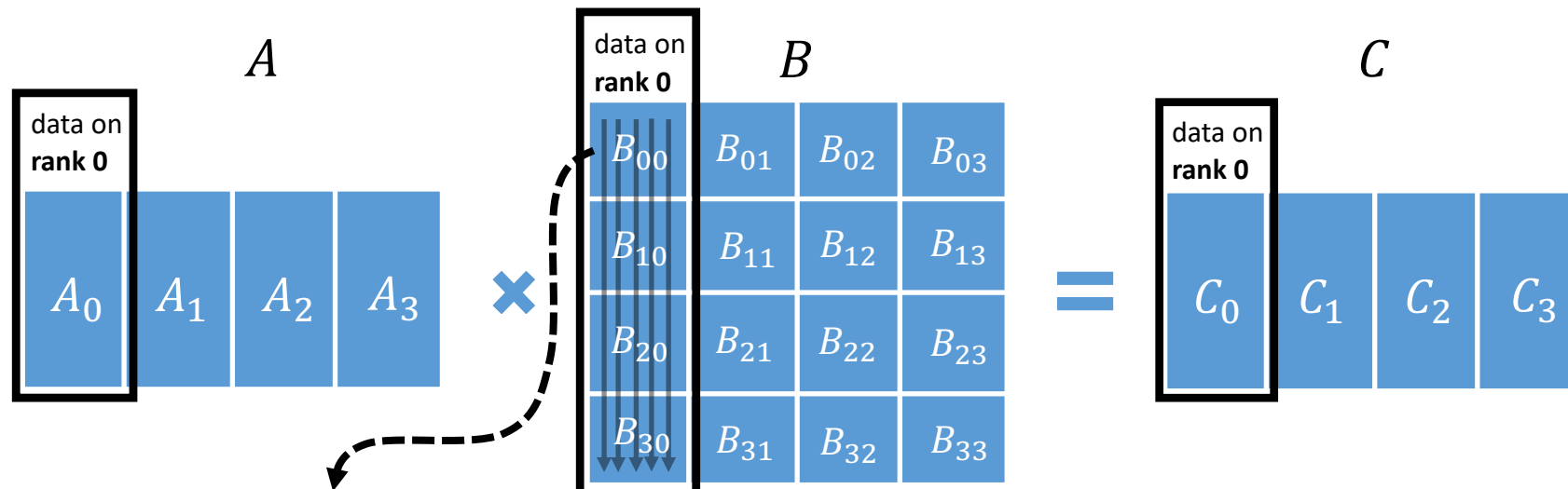


$n$  – split  
 $\Rightarrow$  split  $k$   
 to overlap

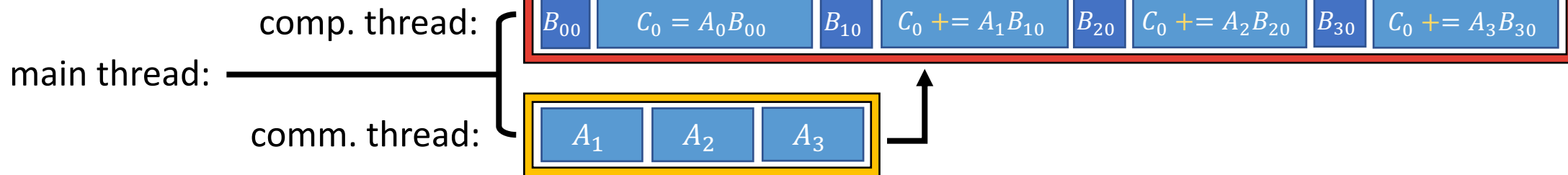


rank 0:

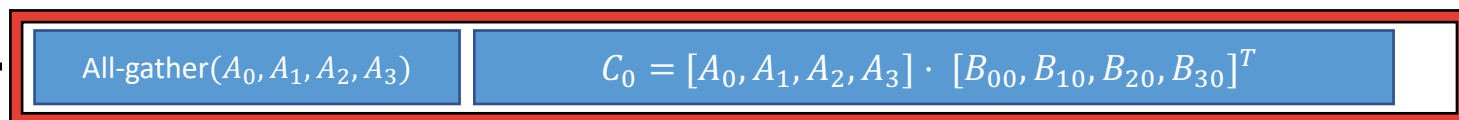
intermediate buffer:  
 (reordering data)

with overlap of communication and computation

reduction  
 (summation)



main thread:



without overlap of communication and computation