

All to all transfer of variables

Original Distribution: x sweep

$a_{i,1,1}$	$a_{i,1,2}$	$a_{i,1,3}$	$a_{i,1,4}$	$a_{i,1,5}$	$a_{i,1,6}$	$a_{i,1,7}$	$a_{i,1,8}$
$a_{i,2,1}$	$a_{i,2,2}$	$a_{i,2,3}$	$a_{i,2,4}$	$a_{i,2,5}$	$a_{i,2,6}$	$a_{i,2,7}$	$a_{i,2,8}$
$a_{i,3,1}$	$a_{i,3,2}$	$a_{i,3,3}$	$a_{i,3,4}$	$a_{i,3,5}$	$a_{i,3,6}$	$a_{i,3,7}$	$a_{i,3,8}$
$a_{i,4,1}$	$a_{i,4,2}$	$a_{i,4,3}$	$a_{i,4,4}$	$a_{i,4,5}$	$a_{i,4,6}$	$a_{i,4,7}$	$a_{i,4,8}$
$a_{i,5,1}$	$a_{i,5,2}$	$a_{i,5,3}$	$a_{i,5,4}$	$a_{i,5,5}$	$a_{i,5,6}$	$a_{i,5,7}$	$a_{i,5,8}$
$a_{i,6,1}$	$a_{i,6,2}$	$a_{i,6,3}$	$a_{i,6,4}$	$a_{i,6,5}$	$a_{i,6,6}$	$a_{i,6,7}$	$a_{i,6,8}$

↓

ALL_TO_ALL

↓

Distribution After All to All

$a_{i,1,1}$	$a_{i,1,2}$	$a_{i,1,3}$	$a_{i,1,4}$	$a_{i,4,1}$	$a_{i,4,2}$	$a_{i,4,3}$	$a_{i,4,4}$
$a_{i,2,1}$	$a_{i,2,2}$	$a_{i,2,3}$	$a_{i,2,4}$	$a_{i,5,1}$	$a_{i,5,2}$	$a_{i,5,3}$	$a_{i,5,4}$
$a_{i,3,1}$	$a_{i,3,2}$	$a_{i,3,3}$	$a_{i,3,4}$	$a_{i,6,1}$	$a_{i,6,2}$	$a_{i,6,3}$	$a_{i,6,4}$
$a_{i,1,5}$	$a_{i,1,6}$	$a_{i,1,7}$	$a_{i,1,8}$	$a_{i,4,5}$	$a_{i,4,6}$	$a_{i,4,7}$	$a_{i,4,8}$
$a_{i,2,5}$	$a_{i,2,6}$	$a_{i,2,7}$	$a_{i,2,8}$	$a_{i,5,5}$	$a_{i,5,6}$	$a_{i,5,7}$	$a_{i,5,8}$
$a_{i,3,5}$	$a_{i,3,6}$	$a_{i,3,7}$	$a_{i,3,8}$	$a_{i,6,5}$	$a_{i,6,6}$	$a_{i,6,7}$	$a_{i,6,8}$

↓

REDISTRIBUTION $a \rightarrow b$

↓

Distribution After Redistribution: Proceed to y sweep

$b_{i,1,1}$	$b_{i,1,2}$	$b_{i,1,3}$	$b_{i,1,4}$	$b_{i,1,5}$	$b_{i,1,6}$
$b_{i,2,1}$	$b_{i,2,2}$	$b_{i,2,3}$	$b_{i,2,4}$	$b_{i,2,5}$	$b_{i,2,6}$
$b_{i,3,1}$	$b_{i,3,2}$	$b_{i,3,3}$	$b_{i,3,4}$	$b_{i,3,5}$	$b_{i,3,6}$
$b_{i,4,1}$	$b_{i,4,2}$	$b_{i,4,3}$	$b_{i,4,4}$	$b_{i,4,5}$	$b_{i,4,6}$
$b_{i,5,1}$	$b_{i,5,2}$	$b_{i,5,3}$	$b_{i,5,4}$	$b_{i,5,5}$	$b_{i,5,6}$
$b_{i,6,1}$	$b_{i,6,2}$	$b_{i,6,3}$	$b_{i,6,4}$	$b_{i,6,5}$	$b_{i,6,6}$
$b_{i,7,1}$	$b_{i,7,2}$	$b_{i,7,3}$	$b_{i,7,4}$	$b_{i,7,5}$	$b_{i,7,6}$
$b_{i,8,1}$	$b_{i,8,2}$	$b_{i,8,3}$	$b_{i,8,4}$	$b_{i,8,5}$	$b_{i,8,6}$