

# Jacobi with 4 threads

Xs are write  
only by 1 thread

T1:

$$X_1 = a_{11}Y_1 + a_{12}Y_2 + a_{13}Y_3 + a_{14}Y_4$$

T2:

$$X_2 = a_{21}Y_1 + a_{22}Y_2 + a_{23}Y_3 + a_{24}Y_4$$

T3:

$$X_3 = a_{31}Y_1 + a_{32}Y_2 + a_{33}Y_3 + a_{34}Y_4$$

T4:

$$X_4 = a_{41}Y_1 + a_{42}Y_2 + a_{43}Y_3 + a_{44}Y_4$$

Ys are read only

$$X = A \times Y$$

barrier(4)

T1:

$$Y_1 = a_{11}X_1 + a_{12}X_2 + a_{13}X_3 + a_{14}X_4$$

T2:

$$Y_2 = a_{21}X_1 + a_{22}X_2 + a_{23}X_3 + a_{24}X_4$$

T3:

$$Y_3 = a_{31}X_1 + a_{32}X_2 + a_{33}X_3 + a_{34}X_4$$

T4:

$$Y_4 = a_{41}X_1 + a_{42}X_2 + a_{43}X_3 + a_{44}X_4$$

Ys are write  
only by 1 thread

Xs are read only

$$Y = A \times X$$

barrier(4)

finished

NO