

```
for thread_group (by, bx) in cross(64, 64):  
    for thread_item (ty, tx) in cross(2, 2):  
        local CL[8][8] = 0  
        shared AS[2][8], BS[2][8]  
        for k in range(1024):  
            for i in range(4):  
                AS[ty][i*4+tx] = A[k][by*64+ty*8+i*4+tx]  
            for each i in 0..4:  
                BS[ty][i*4+tx] = B[k][bx*64+ty*8+i*4+tx]  
        memory_barrier_among_threads()  
        for yi in range(8):  
            for xi in range(8):  
                CL[yi][xi] += AS[yi] * BS[xi]  
        for yi in range(8):  
            for xi in range(8):  
                C[yo*8+yi][xo*8+xi] = CL[yi][xi]
```

All threads cooperatively  
load AS and BS in different  
parallel patterns



Barrier inserted  
automatically  
by compiler

