

```
for (blocki = 0; blocki < patch1_size; blocki += BLOCK_SIZE*TILE_WIDTH_1){
    for (__ii = 0; __ii < TILE_WIDTH_1; __ii++){
        load one patch 1 atom into register;
    }
    for (blockj = 0; blockj < patch2_size; blockj += SHARED_SIZE*TILE_WIDTH_2){
        __syncthreads();
        for (__jj = 0; __jj < TILE_WIDTH_2; __jj++){
            load patch 2 atoms into shared memory;
        }
        __syncthreads();
        for (__ii = 0; __ii < TILE_WIDTH_1; __ii++) {
            for (__jj = 0; __jj < TILE_WIDTH_2; __jj++) {
                USE_PAIRLIST;
                if (r2 < cutoff) calculate force on patch 1 atom;
            }
        }
    }
    write force result back to global memory;
    GENERATE_PAIRLIST;
}
```