Applications of Parallel Computing

For this assignment, we will be coding an optimized memory-hierarchy-cognizant matrix-matrix multiply routine. For simplicity, we will only require square matrices (worrying about the non-square case, essential for a good library code, can be a bit time-consuming). The goal of the assignment is to:

- write a matrix routine C = C + A*B for square matrices
- get as close to peak performance as possible, while still getting the right answer

Rewrite your matrix multiply to take advantage of the cache by doing sub-blocking.

J. Dongarra, P. Mayes, G. Radicati, The IBM RISC System/6000 and Linear Algebra Operations, UT, CS-90-122, December 1990.
http://www.netlib.org/lapack/lawns/lawn28.ps