This folder contains a couple of benchmark utities and Eigen benchmarks.

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\* bench\_multi\_compilers.sh \*

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This script allows to run a benchmark on a set of different compilers/compiler options.

It takes two arguments:

- a file defining the list of the compilers with their options

- the .cpp file of the benchmark

Examples:

$ ./bench\_multi\_compilers.sh basicbench.cxxlist basicbenchmark.cpp

g++-4.1 -O3 -DNDEBUG -finline-limit=10000

3d-3x3 / 4d-4x4 / Xd-4x4 / Xd-20x20 /

0.271102 0.131416 0.422322 0.198633

0.201658 0.102436 0.397566 0.207282

g++-4.2 -O3 -DNDEBUG -finline-limit=10000

3d-3x3 / 4d-4x4 / Xd-4x4 / Xd-20x20 /

0.107805 0.0890579 0.30265 0.161843

0.127157 0.0712581 0.278341 0.191029

g++-4.3 -O3 -DNDEBUG -finline-limit=10000

3d-3x3 / 4d-4x4 / Xd-4x4 / Xd-20x20 /

0.134318 0.105291 0.3704 0.180966

0.137703 0.0732472 0.31225 0.202204

icpc -fast -DNDEBUG -fno-exceptions -no-inline-max-size

3d-3x3 / 4d-4x4 / Xd-4x4 / Xd-20x20 /

0.226145 0.0941319 0.371873 0.159433

0.109302 0.0837538 0.328102 0.173891

$ ./bench\_multi\_compilers.sh ompbench.cxxlist ompbenchmark.cpp

g++-4.2 -O3 -DNDEBUG -finline-limit=10000 -fopenmp

double, fixed-size 4x4: 0.00165105s 0.0778739s

double, 32x32: 0.0654769s 0.075289s => x0.869674 (2)

double, 128x128: 0.054148s 0.0419669s => x1.29025 (2)

double, 512x512: 0.913799s 0.428533s => x2.13239 (2)

double, 1024x1024: 14.5972s 9.3542s => x1.5605 (2)

icpc -fast -DNDEBUG -fno-exceptions -no-inline-max-size -openmp

double, fixed-size 4x4: 0.000589848s 0.019949s

double, 32x32: 0.0682781s 0.0449722s => x1.51823 (2)

double, 128x128: 0.0547509s 0.0435519s => x1.25714 (2)

double, 512x512: 0.829436s 0.424438s => x1.9542 (2)

double, 1024x1024: 14.5243s 10.7735s => x1.34815 (2)