HPCG

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I get the HPCG (High Performance Conjugate Gradients) benchmark from http://www.hpcg-benchmark.org/downloads/hpcg-3.0.tar.gz.
I used HPCH against MKL library using OpenMP. First of all I created a Makefile in the setup directory (Make._MPI_OPENMP) and I built it with make arch=MPI_OPENMP.
Once completed the process, you get an xhpcg file in the bin directory. By default the hpcg.dat file reads

```
HPCG benchmark input file
Sandia National Laboratories; University of Tennessee, Knoxville
104 104 104
60
```

I ran it:

```
OMP_NUM_THREADS=1 ./xhpl
```

And I get the following output:

```
HPCG result is VALID with a GFLOP/s rating of: 7.88164
```

To check if this result does make sense, let's recompute the Theoretical Peak Performance con Cosilt's nodes: Frequency * N cores * N float operations per cycle = $2.7 * 10^9$ * (2 * 12) * (4 * 2) = 518.4 GFLOP/s

We can see that the value obtained from HPCG benchmark is only the 1.52% of the theoretical peak performance... so it does not make sense.