



MKL-lab2 : FFT with pragma offload and Native Execution

In this example we learn how to offload MKL function calls using offload pragmas.

1. Objectives and learning goals

- To control memory allocation on MIC
 - Understand data transferring and data persistence
 - Set up the build environment
 - Compile the program on the host without modifying the original code
 - `icc -no-offload -mkl mkl_fft.c -o mkl_fft`
 - Run the program: `./mkl_fft`
 - Code to offload, replace the LRZ WORK FOR YOU comments with MKL calls
 - Compile the program for offload: `icc -mkl mkl_fft.c -o mkl_fft`
 - Run the program: `./mkl_fft`
 - Check the performance results
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- What about the performance:
 - Compile the program for Native execution:
 - `icc -mmic -mkl_fft.c -o mkl_fft.mic`
 - add this setting:
`export KMP_AFFINITY=explicit,granularity=fine,proclist=[1-240:1]`
and run again.

Try now to understand the performance numbers.