

OpenCL Hands-on

SPD Course

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OpenCL on Titanic

- You should all have received credentials to log in on titanic
 - Never forget to check for reservations
 - Never forget to check GPU temperature when running the GPU for more than a minute
 - **tail /var/log/gputemp** is your friend
- As part of the CUDA 8.0 installation
 - Only supports OpenCL 1.2 officially
 - No examples already installed
- Example sources (see course page for URL)
 - Nvidia SDK
 - HandsOnOpenCL (open source on Github)

- Git clone from repository or
- Find the archive in the /home directory
 - **Exercises-Solutions-master.zip**
- You need to export variables pointing at the OpenCL path on titanic
 - export CPATH=/usr/local/cuda/include/
 - export LD_LIBRARY_PATH=/usr/local/cuda/lib64/
- Get into exercises directories and try them
 - Make
 - Run, in the simple cases
 - Edit the source to complete the exercise

- Use either the C or C++ version, whatever language you feel more at ease with.
- 01 test it!
- 02 test the code, examine it
- 03 test the code, examine it
- 04, 05, 06, 07, 08, you can do them easily
- 10 try it. The CPU is also a CL device!
- 11 try it at home, requires time
- 12 is easy