

OPENACC

- For OpenACC, we will be using the online course

<https://training.sharcnet.ca/course/index.php?categoryid=71>

- SAXPY example
 - Julia set example
 - Reduction example
 - Iterative Jacobi solver example
 - Going beyond “kernels”
- Code for in-class exercises (requires CC account):

```
$ git clone https://git.sharcnet.ca/syam/openacc3
```

Interactive exercises

- It is more convenient to allocate interactive resources for in-class and home work

```
$ ssh user@cluster.alliancecan.ca
```

Here “cluster” is graham, cedar, beluga, or narval.

```
$ salloc --time=0-00:30 -n 1 -A def-xxx --mem=4G  
--gres=gpu:p100:1
```

Batch jobs

- If *salloc* command takes too long, you can also try submitting a batch job, using *sbatch* command.
 - Create a text file (job script), e.g. *text.sh* :

```
#!/bin/bash
#SBATCH -A def-xxx # Use your account name
#SBATCH -t 0-00:10 #Requested runtime – here 10min
#SBATCH -n 1
#SBATCH --mem-per-cpu=4G
#SBATCH --gres=gpu:p100:1
nvidia-smi # executable statement(s)
```

Then submit the job as follows:

```
$ sbatch text.sh
```

OpenACC resources

- <https://www.openacc.org/resources>