Lab: Using the Launcher
Setup

1. Grab the lab files
   
   $tar xvf ~train00/lab-launcher.tar
   $cd lab-launcher

2. Load the Launcher module
   
   $module load launcher

3. Grab the launcher.slurm file
   
   $cp $TACC_LAUNCHER_DIR/launcher.slurm .
Looking at the Job Decks

• The lab directory contains three different paramlist files
  – paramlist.stdout
  – paramlist.task-output
  – paramlist.job-output
• Each of these paramlist files has 48 jobs
• You can view the contents of each paramlist file by using the `cat` command
  – `$cat paramlist.stdout`
Submitting the Job Decks

• Alter the launcher.slurm file using your editor of choice (nano, vi, emacs) to use the appropriate paramlist file.
  – The environment variable CONTROL_FILE points to the paramlist file you wish to execute
  – Example: set CONTROL_FILE to paramlist.stdout
    Export CONTROL_FILE=paramlist.stdout

• Try submitting each job deck

• Since each job deck uses similar output filenames, wait for one to finish before cleaning up and starting the next
  – To clean up, remove the output files (`rm output.*`)
Changing the Number of Tasks

• So far we have been using 16 tasks on a single node to perform these tests
  – N=1, n=16

• Change the launcher.slurm file to use 8 tasks on 1 node (N=1, n=8) and rerun the job decks

• Now try 32 tasks on 2 nodes (N=2, n=16)