**Blue Waters Petascale Semester Curriculum v1.0**

**Unit 3: Using a Cluster**

**Lesson 8: Scaling on a Cluster 2**

**Exercise Instructions for Students**

*Developed by Hyacinthe Aboudja for the Shodor Education Foundation, Inc.*



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*Browse and search the full curriculum at*[*http://shodor.org/petascale/materials/semester-curriculum*](http://shodor.org/petascale/materials/semester-curriculum)

*We welcome your improvements! You can submit your proposed changes to this material and the rest of the curriculum in our GitHub repository at*[*https://github.com/shodor-education/petascale-semester-curriculum*](https://github.com/shodor-education/petascale-semester-curriculum)

*We want to hear from you! Please let us know your experiences using this material by sending email to* [*petascale@shodor.org*](mailto:petascale@shodor.org)

* Access your cluster using your user credentials
* Compile the file mpi\_hello.c with the command : % mpicc -o mpi\_hello mpi\_hello.c
* Edit the job script using the template provided (job.sh) with specific modifications according to your settings such as the current directory where reside the source code mpi\_hello.c, the executable mpi\_hello and the job script created.
* Submit the job to the workload manager with the following command depending of the workload manager and scheduler SLURM or TORQUE/PBS:
* For TORQUE/PBS: % qsub job.sh
* For SLURM: % sbatch job.sh