

# CHPC Student Cluster Competition 2022

The benchmarks were chosen to be compatible with the software environment that you previously setup in the first round of this competition. For this round, you are allowed to install any legally obtained software you wish to run the problems. However, using obscure, nonstandard software may limit the support you receive from the competition organizers.

You are strongly encouraged to make use of any resource available to you. However, be advised that the competition organizers will provide limited technical support and assistance in building and running your applications.

Team mentors are encouraged to support and motivate their teams. However, they may not do any of the work for the students. They are strictly there to provide guidance and suggestions, and are there to participate in the conference for their own benefit as well.

Team captains will each be issued a competition USB flash drive. This is how the teams will be issued with their benchmarks and how teams will submit their results. Only the Team captain can approach the organizers' booth, to submit and/or receive benchmarks. Only one Team captain is allowed at the organizer's booth at any time.

To receive the next set of benchmarks, you will need to make a valid submission of the previous benchmark. Alternatively, you may forfeit penalty points should you be unable to submit a preceding result but want to attempt the next benchmark. The benchmarks will get progressively harder.

The competition organizers will give teams a general indication of where they should be, in the morning at the beginning of the day, and again in the afternoon at the end of the day.

The competition will end on **Thursday, 1<sup>st</sup> of December at 10:00am.**

Rulings and decisions from the competition organizers are final.

Good Luck!

## Cheat Sheet of useful Linux Commands

ssh	used from logging into the remote machine and for executing commands on the remote machine.
scp	scp copies files between hosts on a network. It uses ssh for data transfer, and uses the same authentication and provides the same security as ssh.
wget / curl	free utility for non-interactive download of files from the Web. It supports HTTP, HTTPS, and FTP protocols.
top / htop	provides a dynamic real-time view of a running system. It can display system summary information as well as a list of processes or threads.
screen / tmux	a full-screen window manager that multiplexes a physical terminal between several processes (typically interactive shells).
ip a	display IP Addresses and property information
dmesg	prints the message buffer of the kernel. The output of this command typically contains the messages produced by the device drivers
watch	execute a program periodically, showing output fullscreen.
df -h	report file system disk space usage.
ping	the ping command is used to verify that a device can communicate with another on a network.
lynx	Command-line based web browser (more useful than you think)
ctrl+alt+[F1...F6 ]	Open another shell session (multiple 'desktops')
ctrl+z	Move command to background (useful with 'bg')
du -h	summarize disk usage of each FILE, recursively for directories.

