

CHPC 2024 Student Cluster Competition Timetable

| Monday (8th July) | Tuesday (9th July) | Wednesday (10th July) |
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| | | |
| Welcome, Intro & Getting Started | HPC Hardware, HPC Networking & Sys Admin | Benchmarking, Compilation and Parallel Computing |
| 7:00 Breakfast | 7:00 Breakfast | 7:00 Breakfast |
| 8:30 Welcome and Introduction | 8:30 HPC Hardware | 8:30 HPC Benchmarking |
| 9:30 Getting Started | 9:30 HPC Networking | 9:30 Code Compilation |
| 10:30 Tea Break | 10:30 Tea Break | 10:30 Tea Break |
| 11:00 Introduction to Linux & Services | 11:00 System Administration & Configuration Management | 11:00 Parallel & Quantum Computing |
| 12:00 Introduction to Tools for the Modern IT Engineer | 12:00 Standing up a Compute Node | 12:00 Applications: LAMMPS & Qiskit |
| 13:00 Lunch | 13:00 Lunch | 13:00 Lunch |
| 14:00 Tutorials | 14:00 Tutorials | 14:00 Tutorials |
| 15:30 Tea Break (Staff Session) | 15:30 Tea Break (Staff Session) | 15:30 Tea Break (Staff Session) |
| 18:00 Dinner | 18:00 Dinner | 18:00 Dinner |
| Cluster Design Assignment (Part 1) | Benchmarking Assignment | Cluster Design Assignment (Part 2) |
| Tutorial 1: Build / Compile GCC and Single Node HPL | Tutorial 2: Network, NAT, NTP, NFS, SSH, Firewall, User Management | Tutorial 3:Lmod, Build and Compile BLAS, MPI & HPL, HPCC, LAMMPS, Qiskit |

| Thursday (11th July) | Friday (12th July) | Saturday (13th July) |
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| HPC Administration and Application Visualization | Career Guidance Pannel | Student Presentations |
| 7:00 Breakfast | 7:00 Breakfast | 7:00 Breakfast |
| 8:30 Cluster Admin, Ansible & Containers | 8:30 HPC Career Pannel | |
| 9:30 Monitoring | | |
| 10:30 Tea Break | 10:30 Tea Break | |
| 11:00 Schedulers | 11:00 Tutorials | |
| 12:00 Data Visualization & Jupyter Labs | | |
| 13:00 Lunch | 13:00 Lunch | 8:00 Team Presentations |
| 14:00 Tutorials | 14:00 Tutorials | |
| 15:30 Tea Break (Staff Session) | 15:30 Tea Break (Staff Session) | |
| 18:00 Dinner | 18:00 Dinner | |
| | 23:00 Cluster Design Assignment Submission Deadline | 23:00 (Saturday) Benchmarking Assignment Submission Deadline |
| Tutorial 4: Cluster Admin, Monitoring, Data Visualization & Interpretation | | |

Accommodation

All students to be checked-in, by 16:00 on Sunday 7th July 2024.

[Student Residence](#)

Welcome Dinner Funcion

The Welcome Function will be held at from

18:30 for 19:00 on Sunday 7th July 2024.

Directions to Welcome Dinner Function

[North Campus Conference Center](#)

Directions to Cafeteria for Breakfast and Dinner

[North Campus Conference Center](#)

Directions to Computer Labs for all Lectures and Tutorials Room 3

[Mapungubwe Building - Newton Engineering](#)

| Saturday (13th July) | | | |
|------------------------------|----------------|-------|--------------------|
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| Student Presentations Roster | | | |
| 8:00 | Wits1 | 12:00 | HyperNet |
| 8:20 | EEElite | 12:20 | UNISA-SCT '24 |
| 8:40 | HPC Wizards | 12:40 | Lunch |
| 9:00 | Wits-A | 13:40 | Ctrl Alt Elite |
| 9:20 | Tea Break | 14:00 | Future Innovators |
| 9:40 | The Best Group | 14:20 | Nexus Networkers |
| 10:00 | Khulisa IP-A | 14:40 | Cybershield |
| 10:20 | ThunderBytes | 15:00 | Tea Break |
| 10:40 | Khulisa Data | 15:20 | Algorithm Avengers |
| 11:00 | Tea Break | 15:40 | Parallel Pioneers |
| 11:20 | WSU Elite | 16:00 | DC Spears |
| 11:40 | Cyphers | 16:20 | CUT_Team |
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