

Week 1 – January 25/27, 2022

High Energy Physics Computing Basics

Setting Up Your Workstation





Objectives

- Setup functioning workstation (terminal, editor, git, computing accounts)
- Understand role of computing in High Energy Physics research
- Identify appropriate computing resources (peer, community, instructors)

Workstation Checklist

- Access to terminal (Mac/Linux terminal included, PC->Cygwin/puTTY)
- Install ROOT software (latest possible version) and python3
- Install favorite text editor (e.g. emacs)
- Configure environment on lxplus

Exercises

-  Create and edit text files locally and remotely (lxplus)
 - Public vs work vs scratch spaces
-  Setup an **alias** to log into lxplus
 - What is .bash_profile, .basrc?
-  Develop your personalized text editor (grab a basic one, add something new)
 - Be prepared to defend your position!
-  Create summary sheet of unix commands
 - Many online -> make your own!

Outline – Jan 25th

- Introductions
 - Name, preferred pronouns, feel free to share anything about yourself, what will you be working on
- Expectations
 - Where are we starting from?
 - From Instructor
 - Participatory exchange
 - Extensively use resources from previous years ([link to Indico category](#))
 - Adding element of science communication
 - Would like to see students who can engage in *physics* discussions during/after program
 - From Students
 - What material do you want to cover?
 - What skills do you want to feel confident in by summer?
- Round-robin of personal computers and tools already installed
 - OS, terminal, text editor, root/python, grid certificate
- Exercises
 - Terminal sandbox
 - Customized login
 - Text editor
 - Create shortcut sheet, common one?

HW for Tuesday Jan 25th, due Thursday Jan 27th 9am Pacific:

- Prepare pros/cons of your favorite text editor for a <1 minute elevator pitch
- Reflect on expectations/goals for this class, send to instructors

Outline – Jan 27th

- New Meeting Time
 - Ideally, 8:00-9:15am T/Th
 - Have not received response from everyone, please let me know conflicts asap
- Workstation checklist
 - Together, go through above exercises
 - 1min elevator pitch: why your workstation is great (OS, text editors, peripherals)

HW for Thursday, due by end of weekend

- Complete workstation
- Fill out preliminary survey (check you emails)