

One Page Guide to HEP Computing

- 1) If you have any questions or problems email helpdesk@hep.ph.liv.ac.uk, giving any error messages, screenshots and info (“My computer's broken” isn't enough!). For quick queries you can use Mattermost chat at <https://mattermost.ph.liv.ac.uk>, log in with your HEP account.
- 2) Your HEP account allows access to HEP services (eg Gitlab, Mattermost, WISP...). Staff and Postgrads should log in at least once (no need to register) to Indico <https://indico.ph.liv.ac.uk> and TWiki <https://hep.ph.liv.ac.uk/twiki/> to activate accounts on these services.
- 3) The HEP Computing Twiki pages cover general HEP computing needs, please take a quick look at <https://hep.ph.liv.ac.uk/twiki/Computing/> before using the systems.
- 4) Your home directory is at `/user/username`. Your email address is `username@hep.ph.liv.ac.uk`. This email will be the primary contact for HEP matters so you must read them, or forward them to your main email address. See <https://hep.ph.liv.ac.uk/twiki/Computing/EmailGuide>.
- 5) Store important files and documents in your user area (`/user/username`). This is limited to 80GB per user. You also have 100GB of cloud storage in your WISP area, <https://wisp.ph.liv.ac.uk>.
- 6) Experiments may have dedicated file stores, or use our “Bundle” storage (`/bundle/data/`). Check with your experiment or helpdesk about storage options. Batch job output should be streamed to `/bundle/scratch` before copying to elsewhere. Grid users can store bulk data on DPM storage.
- 7) If you exceed storage quotas you will no longer be able to write. Check your usage with `quota -s`.
- 8) You can use your HEP account to access the TWiki (<https://hep.ph.liv.ac.uk/twiki/>) allowing you to view and edit the information there. Ask helpdesk or an existing member of an experiment group to be added to the relevant TWiki groups if you don't already have access.
- 9) Printing is generally provided by the University Ricoh printer service on the colour-uni queue from HEP Linux systems. See the Computing TWiki for more information.
- 10) Windows users can access HEP storage via Samba. Email helpdesk if you need it.
- 11) There are group mailing lists, check with your supervisor if you should join:
 - all@hep.ph.liv.ac.uk is sent to all HEP staff and PhD students.
- 12) Shell access using SSH from outside the University is via `gateway.ph.liv.ac.uk` or Centos7 interactive nodes, which are accessible from all locations. Multiple failures to log in will temporarily block your address. You must register a mobile device with the University DUO service for 2 Factor Authentication, see <https://s.liv.ac.uk/708>.
- 13) High performance Interactive Nodes are available for coding and analysis (gamma, phi, kappa, hepcuda1). LIVDAT users should use the dedicated `livdat1` node.
- 14) There are batch queues for large scale simulation and analysis: See the Computing Twiki for details. Jobs can be submitted from any Linux system.
- 15) We can help with installing Linux on personal systems but we only fully support software environments, development tools and data access on our managed HEP Linux systems.
- 16) Project students can access HEP Linux from Windows systems using MobaXterm. This can be installed from the “Install University Applications” link. Once installed run MobaXterm and choose New Session. This should give a command line which you can log in directly to HEP systems with eg `ssh -X gamma.ph.liv.ac.uk`.
- 17) Remote working is supported and encouraged, see the TWiki for guidance <https://hep.ph.liv.ac.uk/twiki/Computing/WorkingFromHome>.