

# Basic Information on the MPI-P Linux Computers

Max Planck-Institute for Polymer Research

February 24, 2025

Please find additional documentation at

- <https://linuxdocs.mpip-mainz.mpg.de>
- <https://www.mpip-mainz.mpg.de> » Links » Intranet » hover above “MY INSTITUTE” » IT
- <https://thwiki.mpip-mainz.mpg.de> (Theory group, user supplied documentation)

## 1 The Many Passwords

You get at least a “POLY” password for “POLY” computers and newer services and an “MPIP-PC” password for (at the moment) very old Linux computers, eduroam, weilsamba and buttsamba.

You might get additional passwords, e.g. for external access to the institute.

You can change the “POLY” password on your PC using the `passwd` command and the “LDAP” password at <http://ldap.mpip-mainz.mpg.de/mpip>.

## 2 Who can help me?

To avoid misunderstandings due to the bad audio quality of phones, *email is the preferred way of support*.

Primary contact for all IT issues is the helpdesk:  
[helpdesk@mpip-mainz.mpg.de](mailto:helpdesk@mpip-mainz.mpg.de).

Access to the institute from the outside using ssh: Let your project leader send a signed mail to the helpdesk:  
[helpdesk@mpip-mainz.mpg.de](mailto:helpdesk@mpip-mainz.mpg.de).

## 3 Basic Information – mail, files, print

### 3.1 Mail

Your e-mail address looks like [fuwa@mpip-mainz.mpg.de](mailto:fuwa@mpip-mainz.mpg.de).

When starting Mozilla Thunderbird for the first time, enter your name, e-mail address, and your mail password. Thunderbird automatically determines the mail server settings. Please be patient; it takes Thunderbird a while to find the settings.

### 3.2 Disk Space

Your home directory is the most important disk space.

For large amounts of data, e.g. for simulation data you can get additional disk space on your PCs `/usr/data` directory or on *bee8* (POLY) or *bee14*. This disk space is backed up (almost) each night, and can be recovered for up to three months in case of disk failure or accidental deletion.

Table 1: Choosing disk space

space	location	use for	speed
<code>\${HOME}</code>	network	personal data	slow
<code>/tmp</code>	memory/disk	temporary data	fastest
<code>/usr/data</code>	disk in PCs	many small files	fast
<code>/usr/scratch</code>	thincXXX	temp. job data	fast
<code>/data/beeX</code>	network	big files	slowest

### 3.3 Printing

Your Linux desktop knows all theory group printers. The printers have a sticker showing their name. The theory groups color laser printer *thps49* is in the K-bar.

The big color printers in 1.006 are *lexcx735mpip2* and *lexcx735mpip2*.

## 4 Linux Desktops

**Do not switch off desktops PCs.** Backups are done in the night. If you want to save energy, switch off monitors, switch off room lights, turn down the heating, close windows.

The default desktop for Linux computers is the XFCE desktop environment. For web browsing and email there are Firefox and Thunderbird. Libreoffice is the standard office suite. Additional programs are e.g. Emacs,  $\text{\LaTeX}$ , Python, Eclipse, Maxima etc. (Some of them in the `/sw/linux` directory.)

We also currently provide IceWM.

Some commercial software like Mathematica and Matlab is also installed in `/sw/linux`.

## 5 Using SSH to connect to other Linux computers

### 5.1 Using SSH keys instead of passwords

To log on to other Linux computers without having to type your password every time, generate SSH keys and then make your public key an authorized key using these two commands (do not re-use the keys you get for SSH login from outside):

```
ssh-keygen -t rsa
ssh-copy-id -i ~/.ssh/id_rsa.pub localhost
```

To use rsync/scp when running compute jobs on the cluster you must use an empty passphrase.

### 5.2 Pimp connections by using the configuration file

To (a) avoid having to verify each host you log on to for the first time, to (b) store host names in the `~/.ssh.known_hosts` file, and to (c) have your key-handling stuff forwarded to the system you connect to, create a file `~/.ssh/config` with the following content at the top:

```
StrictHostKeyChecking no
HashKnownHosts no
ForwardAgent yes
IgnoreUnknown UseKeyChain
UseKeyChain yes
```

(The last two lines are for MacOS users, but they don't hurt you if you don't use a Mac)

### 5.3 ssh from/to "LDAP" and "POLY" computers

To ssh from a "POLY" to an "LDAP" PC use the "LDAP" PCs full name, e.g. `ssh pckr232.mpip-mainz.mpg.de`.

To ssh from an "LDAP" to a "POLY" PC you can use the short name plus a ".poly", e.g. `ssh pckr532.poly`

## 6 Linux Clusters

The Theory group has an Linux cluster of its own, the *thinc* cluster. You can read more information about the *thinc* cluster at <https://max.mpg.de/sites/poly/Research/Experts/Pages/HPC-Cluster.aspx>.

If you can't submit jobs from your computer to the local cluster, ssh to `pclinux1.poly.mpip-mainz.mpg.de` to submit jobs.

You can also get access to the MPCDF's computing facilities, e.g. the "Viper" and the "Cobra" supercomputers. For more information see the MPCDF Computing Services web site.

## 7 Working at home and on the road

### 7.1 Mail

You can use our webmail service:

- <https://rc.mpip-mainz.mpg.de>

To use a program like Thunderbird at home, use the following settings:

- For receiving mail, the protocol is IMAP, the server is `mail.mpip-mainz.mpg.de`, and the Port is 993 (using "SSL/TLS").
- For sending mail the server is `smtp.mpip-mainz.mpg.de` and the Port is 465 using "SSL/TLS".

### 7.2 Accessing resources at the institute

- Electronic Journals: <https://ejp.mpip-mainz.mpg.de>

## 8 Odds and Ends

- Wireless Lan: You can use the network "mpip". The password is "polymers".
  - There are a public scanner and two copying machines in room 1.006.