

Access the clusters

Account

You need an account on the HPC clusters to be able to access them and to submit jobs on them.

To request an account please follow the procedure [on this page](#) (Section: Related service).

In principle Baobab/Yggdrasil are reserved for the members of the University of Geneva via their ISIs account (cf. <https://catalogue-si.unige.ch/isis>) and to HES-SO GE users via a specific HPC account (cf. the procedure at <https://catalogue-si.unige.ch/en/hpc>).

But if you collaborate tightly with a researcher from another institution, the PI can provide him/her an access as an *independent contractor* (also called an *external collaborator*) by following the next two steps:

- Ask your [administrator](#) to register the external member in the University database (cf. <https://catalogue-si.unige.ch/en/isis>)
 - For more information about external accounts: <https://memento.unige.ch/doc/0214/>
- Proceed with the account request procedure as described in the preceding question.

SSH connection

Once you have received an email confirming the creation of your account, you have access to our clusters: Baobab and Yggdrasil.

You can access the clusters from anywhere through ssh with your [ISIs](#) account and password.

You can connect to the HPC clusters only through the login nodes.

- **For Baobab** : `login2.baobab.hpc.unige.ch` (CentOS 7)
- **For Yggdrasil** : `login1.yggdrasil.hpc.unige.ch`
- N.B. : Baobab's former login node has been disabled : `baobab1[dot]hpc[dot]unige[dot]ch` (CentOS 6)

The first time you connect, your SSH client will ask you to confirm the **fingerprint** of the server. These are the current SSH fingerprint for both Baobab and Yggdrasil :

```
[root@login2 ~]# ssh-keygen -l -E md5 -f /etc/ssh/ssh_host_rsa_key.pub
2048 MD5:8f:75:c4:18:8a:75:f1:f1:19:4d:85:92:3b:b6:2a:e1 no comment (RSA)
```

If you connect using x2go (at least on windows), you'll see another **fingerprint**:

```
[root@login2.cluster ~]# for x in /etc/ssh/*.pub ; do echo $x && cut -d' ' -f2 < $x | base64 -d | openssl sha1 -c ; done ;
/etc/ssh/ssh_host_rsa_key.pub
```

```
(stdin)= 67:03:fc:6f:32:7c:19:9b:97:b9:e8:7b:12:1d:ad:a6:7b:c9:4c:9c
```

If you type your username/password **wrong 3 times** in a row, you will be **banned for 15 minutes** before you can try again. Please read more in the [Troubleshooting](#) section.

From Linux and Mac OS

Connect to the login node from the terminal:

```
ssh youruser@login2.baobab.hpc.unige.ch
```

or add `-Y` if you need X forwarding:

```
ssh -Y youruser@login2.baobab.hpc.unige.ch
```

N.B. : replace `login2.baobab.hpc.unige.ch` by `login1.yggdrasil.hpc.unige.ch` according to which cluster you are using.

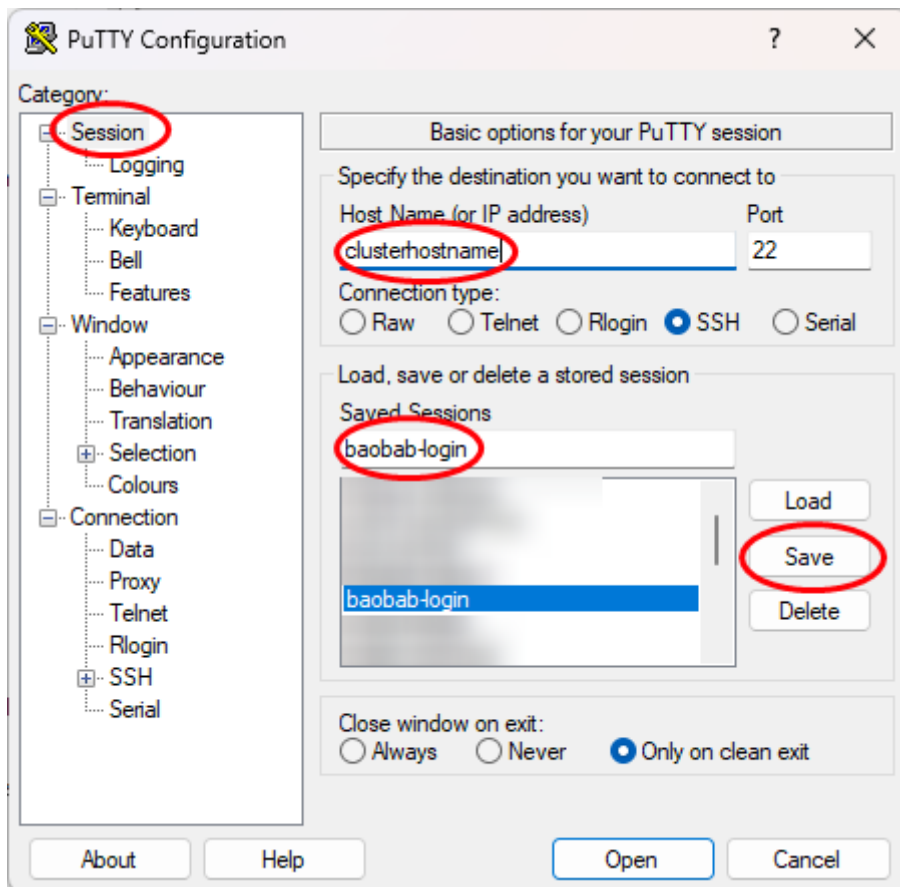
From Windows

To access Baobab or Yggdrasil in SSH from Windows, you can use :

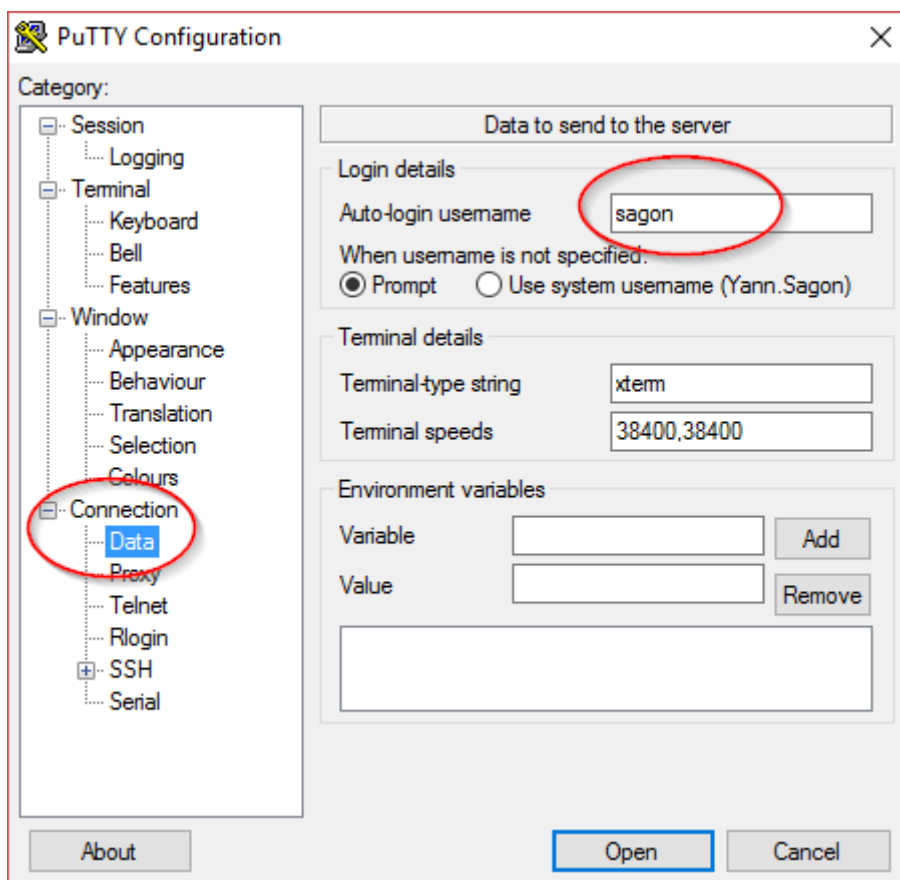
- ssh client integrated in PowerShell. Recent versions of Window 10 offer a ssh client. You can use it the same way you would use it on Linux (see [above](#))
- PuTTY which has been the *de facto* solution for years.
 - You can download it here [PuTTY](#).
 - You will find the needed informations on the screenshots below.

N.B. : replace `baobab2.hpc.unige.ch` by `login1.yggdrasil.hpc.unige.ch` according to which cluster you are using.

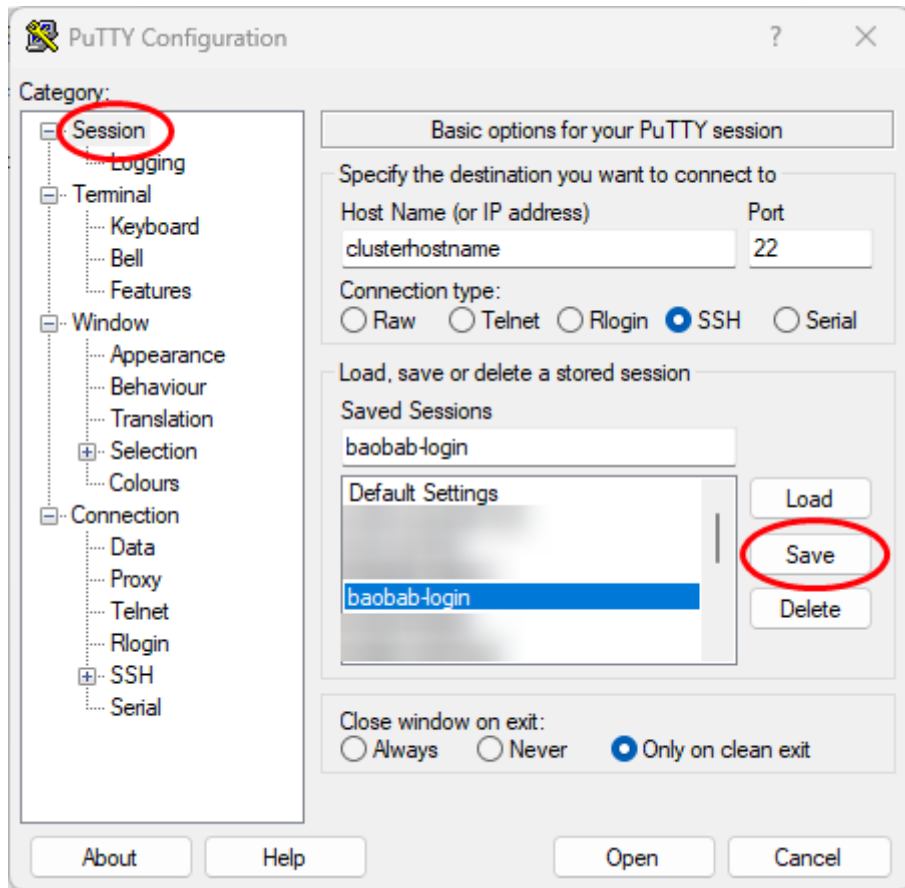
[PuTTY create session](#) :



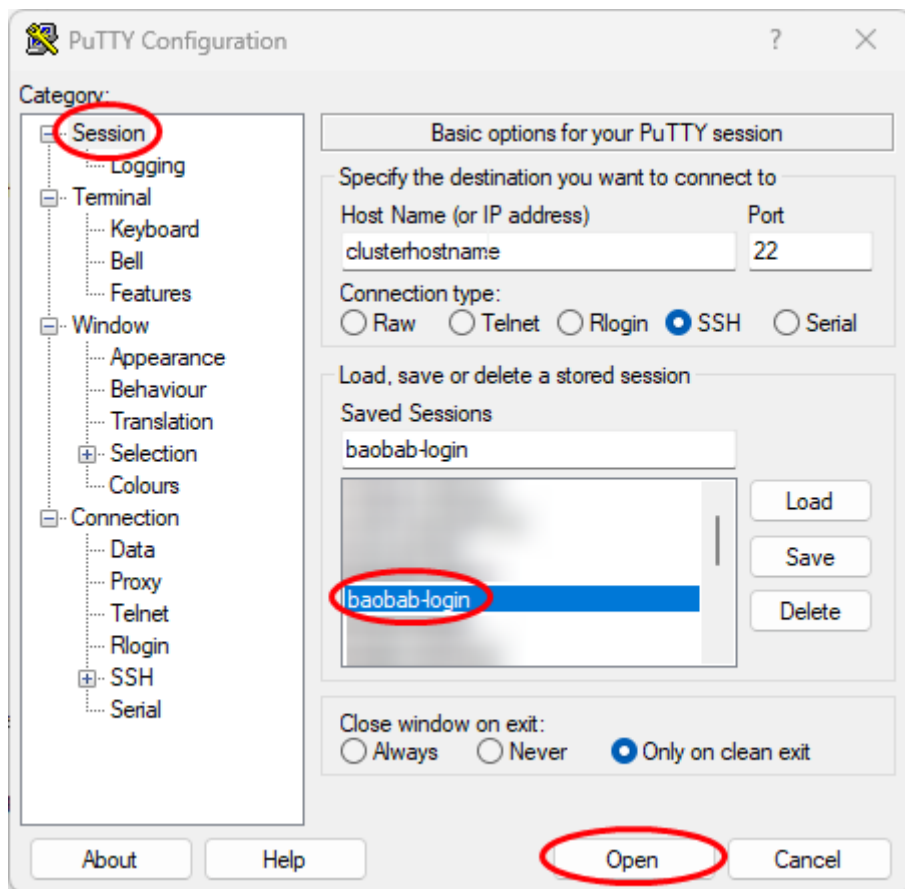
PuTTY enter username :



PuTTY save session :



PuTTY open session :



Once you open a session with PuTTY, you will be prompted for your password.

| Password:

Unlike Windows systems, Linux and Unix systems will **not display** * (star character) or any other character to indicate that you've entered something/anything in a password field - it simply stays totally blank as you type. Cursor won't blink, move, etc.

Just type your password and press enter, everything will be fine.

Access to the compute nodes

In case you need to access the compute nodes for purpose of debugging your software, using htop or other tool directly on the node, you need to go through the login node first and connect from there.

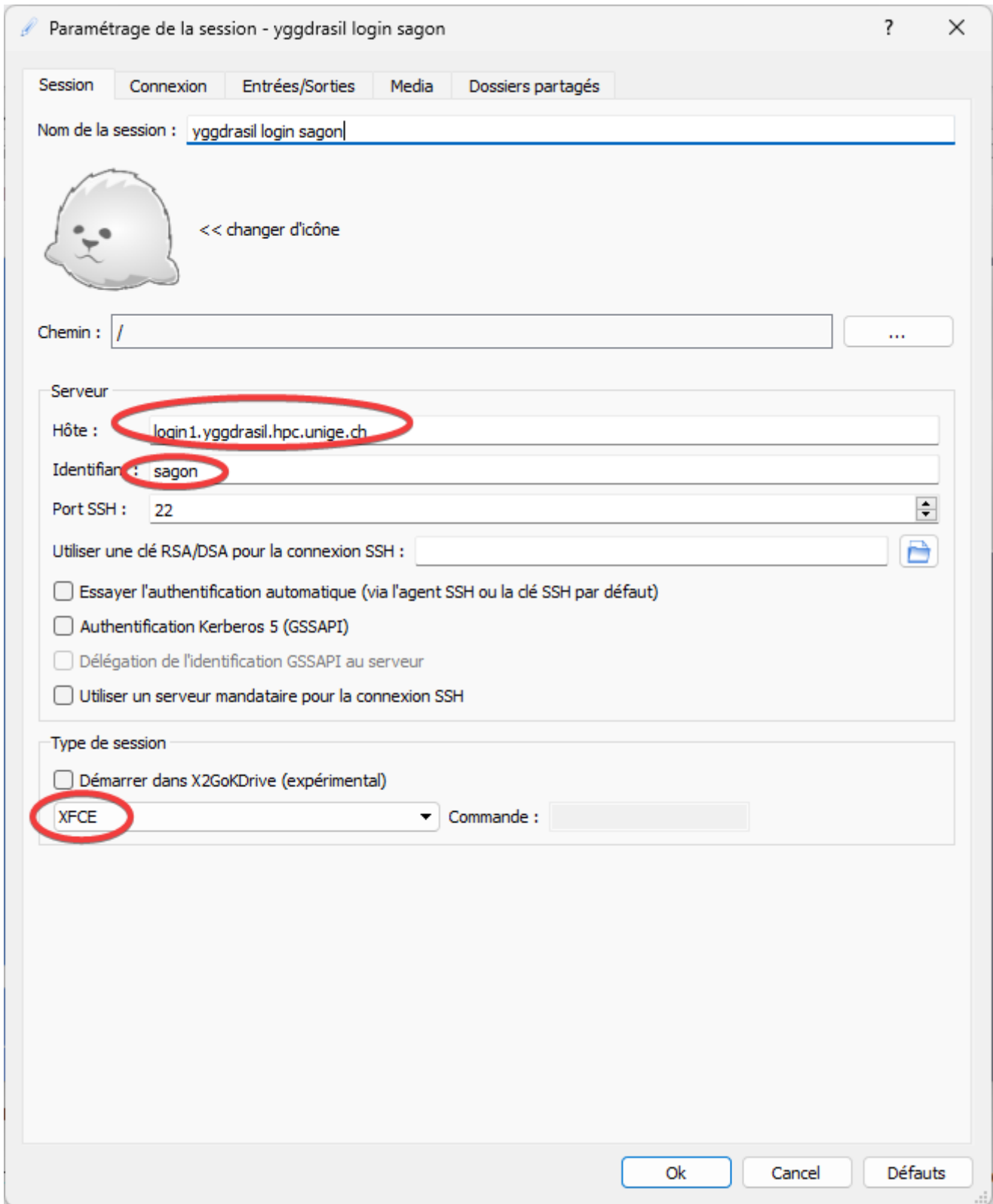
It is important to note that you **cannot** access directly the compute nodes unless you have a **RUNNING job** on it. As soon as your job is finished, you will be logged out from the compute node.

GUI access / Desktop with X2Go

It's possible to access Baobab or Yggdrasil using a graphical interface. We support only X2Go.

You need to install [X2Go client](#) on your computer and create a session following the screenshots below prior to connect to Baobab.

[X2Go create session](#) :



Once connected to the Linux desktop, you can launch lightweight (image viewer, etc.) applications directly.

If you need to launch a heavy graphical program such as Matlab for example, create a new interactive session (see the [Interactive jobs](#) section in the Slurm page) on a compute node. It is **forbidden** to use the login node for this purpose.

File transfer

If you need to transfer files from your computer to Baobab or Yggdrasil, you need to use the sftp protocol (scp).

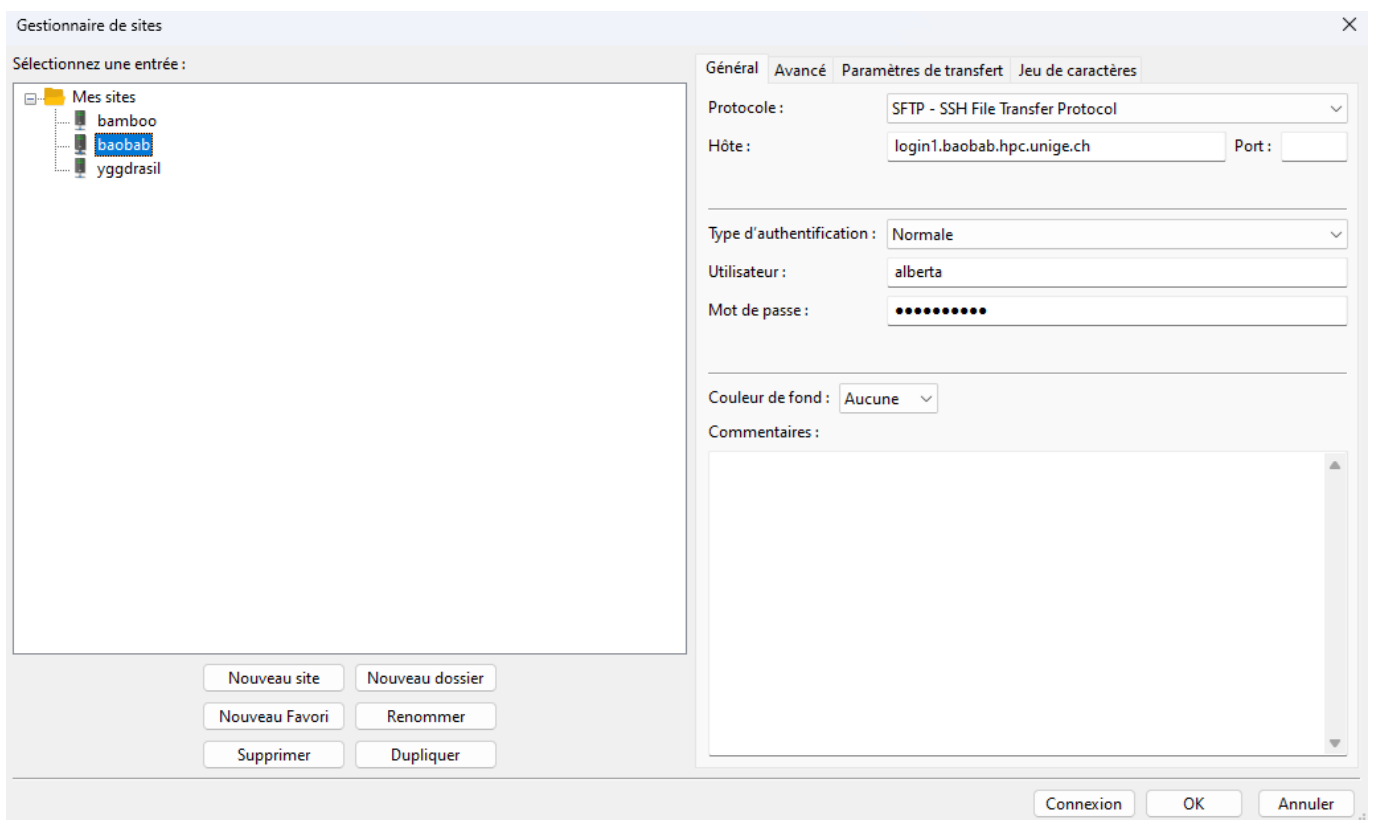
From Linux

We suggest you use scp or a program like rsync

From Windows

We suggest you to use [FileZilla client](#) to transfer your files.

[Filezilla create session :](#)



SSH tunnel and socks proxy

The login* nodes have a firewall that prevent incoming connection other than ssh.

If you need to access a service from the cluster such as a jupyter notebook, please follow the [tutorial we wrote here](#).

Troubleshooting

X11 forwarding not working on mac

If you try to connect to the cluster from a mac using `ssh -Y` and you get an error like the following when launching a graphical application:

```
Can't connect to X11
```

The reason seems that Xorg isn't anymore provided natively and you need to install XQuartz.

<https://stackoverflow.com/questions/50035949/macOS-high-sierra-and-x11-forwarding/50182736#50182736>

"I cannot type my password"

Unlike Windows systems, Linux and Unix systems will **not display** * (star character) or any other character to indicate that you have entered something/anything in a password field - it simply stays totally blank. Cursor won't blink, move, etc.

Just type your password and press enter, everything will be fine.

Be careful not to type your password wrong too many times, or you will be blocked temporarily (see below).

Banned after typing the wrong password 3 times

We use `fail2ban` on the clusters to make it more difficult for hackers to try all possible password (brut force attack).

If you type the wrong password 3 times in a row, you will be banned for 15 minutes (`fail2ban` will blacklist your IP address). After 15 minutes you can try again.

Connection refused

When you try to connect to Baobab or Yggdrasil using `ssh` or `sftp`, if you see the message:

```
Connection refused
```

It may happen because you tried to connect many times with wrong credentials (wrong password or wrong username) and your IP address was blacklisted. Your IP will be unblocked automatically after 15 minutes.

Your Baobab/Yggdrasil password is your ISIS password and we don't manage it. If you forgot your

password or you want to check if it is correct, you may use the following service : mdp.unige.ch

"I forgot my password, can you reset it ?"

Absolutely not. Your Baobab/Yggdrasil password is your ISIS password and we don't manage it.

If you **forgot your password** or you want to check if it is correct, you may use the following service :

- mdp.unige.ch

Impossible to connect

Sometimes, some users cannot connect. There are 3 possible scenarios :

- The cluster is under maintenance.
 - We do it every couple of months, please check your email (and junk/spam folder) for announcements.
- Your network is blocking the access to our clusters or to the SSH protocol.
 - We are using a public IP address for the login nodes, so if you cannot connect, please contact your local network administrator. Ask them if there is any restrictions for accessing `baobab2.hpc.unige.ch` or `login1.yggdrasil.hpc.unige.ch`, or if the port 22 is blocked.
- The login node is down
 - That's very unlikely, but if it happens, just wait a little bit or send us an email if it's not fixed within 15 minutes.

Check the "current issues"

Please check this post which is updated whenever we encounter a problem that is worth mentioning and when we cannot fix it quickly : * <https://hpc-community.unige.ch/t/current-issues-on-baobab/787>

Cannot change locale (UTF-8) (Mac users)

If you have this message when connecting with SSH from a Mac terminal:

```
-bash: warning: setlocale: LC_CTYPE: cannot change locale (UTF-8): No such file or directory
```

You can solve the issue by following the steps #1 [here](#)

Do not forget to close all the open terminal on your Mac and relaunch.

Keyboard issue (Mac users)

If you have a Keyboard issue using a mac, please see [keymap-issues-with-nx-from-mac-os-x](#) for a possible solution.

Switch edu-ID login issue

If you get an error message from Switch edu-ID, while trying to access :

1. <https://hpc-community.unige.ch/>
2. <https://baobabmaster.unige.ch/iface>

Please follow those links to get support :

1. [SWITCH edu-ID account - Welcome](#)
2. [How to create or verify your SWITCH edu-ID account and link it to UNIGE](#)

Make sure you are using the email account you have linked to your Switch edu-ID account.

Please also remember your ISIs (UNIGE) password and your Switch edu-ID password are not supposed to be the same. Make sure you are using the correct password when connecting.

From:
<https://doc.eresearch.unige.ch/> - **eResearch Doc**

Permanent link:
https://doc.eresearch.unige.ch/hpc/access_the_hpc_clusters?rev=1638970526

Last update: **2025/06/11 12:27**

