

Connecting to the cluster

```
ssh <yourlastname>@ssh.bch.umontreal.ca
```

- no special port for connection anymore
- `-X / -Y` option: allows graphical display
- bandwidth limit: use cluster mostly for non-graphical tasks
- exceptions: `gnuplot`, `njplot`

- **change your password !**
- `passwd` command

Organize your account

import useful files

- `cp -r /opt/revbayes/examples ~/.`
- `cp -r /opt/revbayes/tutorials ~/.`

tutorials folder

- handouts, data, example scripts
- will be regularly updated over the week

Copying distant files

from local machine to cluster

- `scp <local_file>
<username>@ssh.bch.umontreal.ca:<path>`
- **example:**
`scp gtr_clock.Rev
lambda@ssh.bch.umontreal.ca:revbayes/examples/`
- **-r option:** recursive copy of entire directories

from cluster to local machine

- `scp -r
<username>@ssh.bch.umontreal.ca:<path/file>
<local_path>`
- **example:**
`scp -r
lambda@ssh.bch.umontreal.ca:revbayes/examples .`

Submitting jobs

interactive shells: the `qssh` command

- `qssh` starts a (non-graphical) interactive shell on `exec` host
- from there, you can run `revbayer` (or anything else)
- once finished, `exit` the shell

non-interactive jobs

- `qsub <script>`
- `qsub -b y <command>` (should be a non-interactive job)
- `qstat -f`: check job status
- `qdel <job_id>`, `qdel <job_name>`: stop specified job
- `qdel -u <my_username>`: stop all your jobs

Rules and good practices

- change your password!
 - don't run revbayes directly from the master node
 - not too intensive graphical outputs are allowed on master
 - don't submit more than 3 jobs (including interactive sessions)
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- use cluster only for revbayes-related work
 - cluster only available until this Sunday (Aug 31)
 - accounts will be de-activated afterwards (by Sept 5)
 - so, don't forget to copy everything somewhere else before then