

# Connecting to the cluster

```
ssh -p 30722 <yourlastname>@sirocco.bcm.umontreal.ca
```

- take note of special port for connection (30722)
  - `-X` / `-Y` option: allows graphical display
  - bandwidth limit: use cluster mostly for non-graphical tasks
  - exceptions: `gnuplot`, `njplot`
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- **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 -P 30722 <local_file>  
<username>@sirocco.bcm.umontreal.ca:<path>`
- **example:**  
`scp -P 30722 gtr_clock.Rev  
nl@sirocco.bcm.umontreal.ca:revbayes/examples/`
- **-r option:** recursive copy of entire directories

## from cluster to local machine

- `scp -P 30722  
<username>@sirocco.bcm.umontreal.ca:<path/file>  
<local_path>`
- **example:**  
`scp -P 30722 -r  
nl@sirocco.bcm.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