

# Connection to the server

**Gustavo Adolfo Silva-Arias Ph.D**

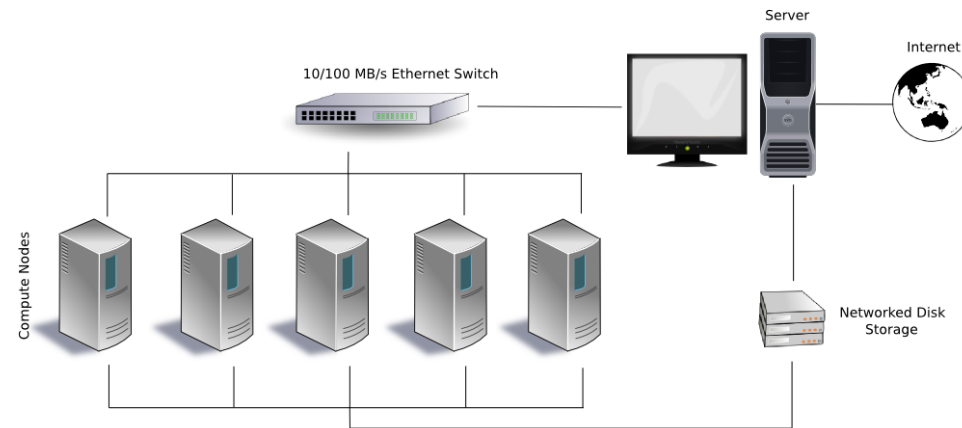
Technische Universität München

Bogotá, 23 de Agosto 2021

# Computer cluster

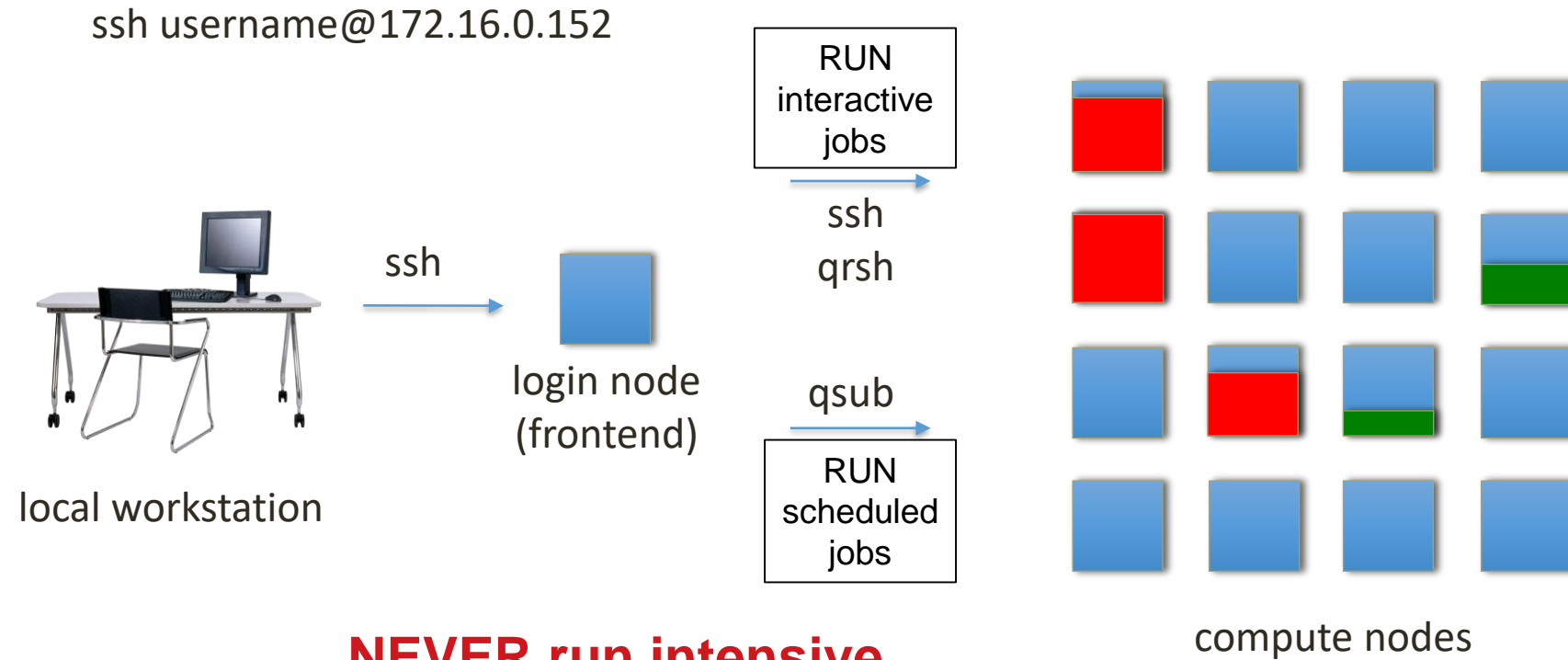
Set connected computers that work together so that, can be viewed as a single system

Computer clusters have each node set to perform different tasks, controlled and scheduled by software



[https://en.wikipedia.org/wiki/Computer\\_cluster](https://en.wikipedia.org/wiki/Computer_cluster)

# ssh connection to the cluster



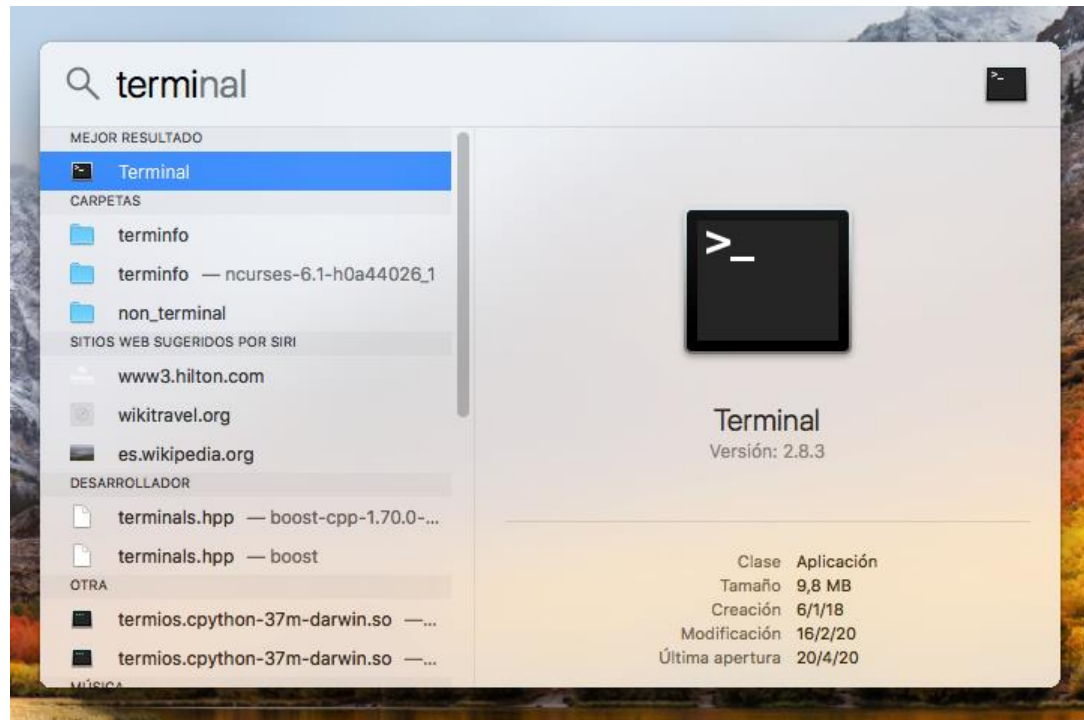
**NEVER run intensive jobs in the frontend**

## Secure connection to the cluster

cursobioinf01	172.16.0.152
Username	IP address login node

# Secure connection to the cluster (**Linux - Mac**)

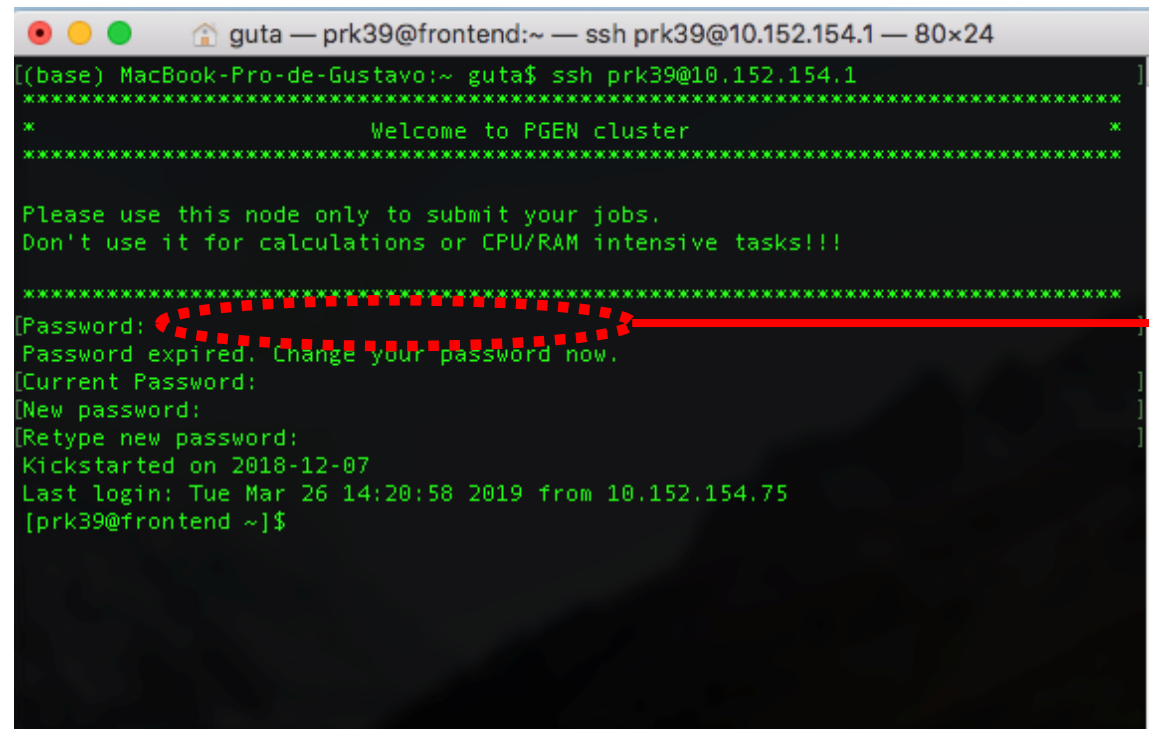
Open terminal



## Secure connection to the cluster (Linux - Mac)

On the terminal type:

```
ssh username@172.16.0.152
```



```
guta — prk39@frontend:~ — ssh prk39@10.152.154.1 — 80x24
[(base) MacBook-Pro-de-Gustavo:~ guta$ ssh prk39@10.152.154.1
*****
*                               Welcome to PGEN cluster                               *
*****

Please use this node only to submit your jobs.
Don't use it for calculations or CPU/RAM intensive tasks!!!

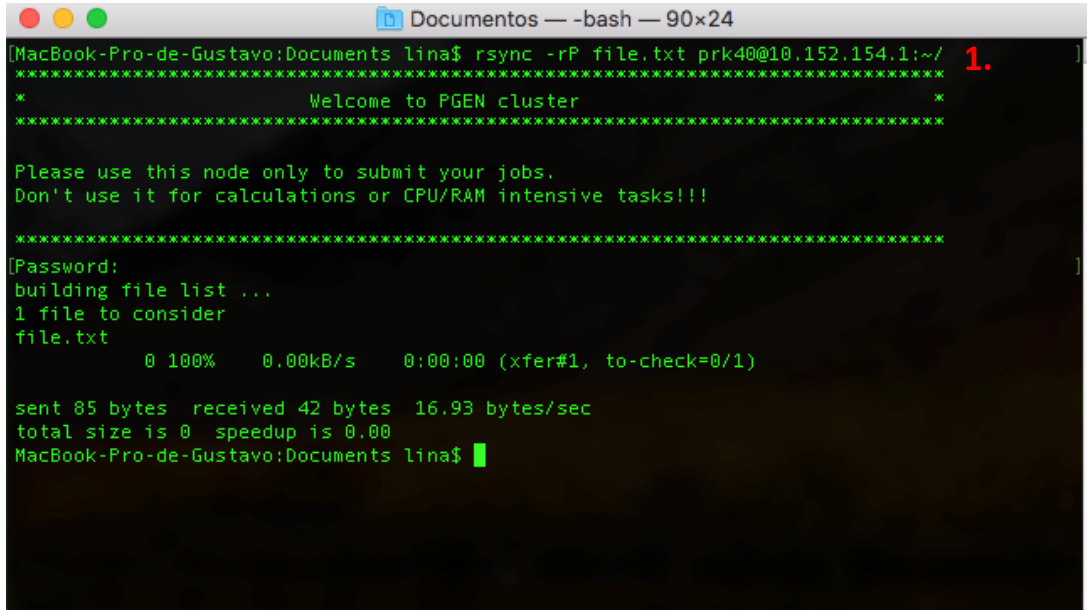
*****
[Password: ]
Password expired. Change your password now.
[Current Password: ]
[New password: ]
[Retype new password: ]
Kickstarted on 2018-12-07
Last login: Tue Mar 26 14:20:58 2019 from 10.152.154.75
[prk39@frontend ~]$
```

Note that you  
can't see any  
character here  
while typing the  
password!!!

## Transfer files from/into the cluster (Linux - Mac)

Use rsync or scp on the local computer:

- From the local computer to the cluster (home directory)  
`rsync -rP filename.txt username@172.16.0.152:~/`
- From the cluster to the local computer (current directory)  
`rsync -rP username@ 172.16.0.152:~/filename.txt .`



```
Documents — -bash — 90x24
[MacBook-Pro-de-Gustavo:Documents lina$ rsync -rP file.txt prk40@10.152.154.1:~/ 1.]
*****
*                               Welcome to PGEN cluster                               *
*****

Please use this node only to submit your jobs.
Don't use it for calculations or CPU/RAM intensive tasks!!!

*****
2. [Password:
building file list ...
1 file to consider
file.txt
0 100% 0.00kB/s 0:00:00 (xfer#1, to-check=0/1)

sent 85 bytes received 42 bytes 16.93 bytes/sec
total size is 0 speedup is 0.00
MacBook-Pro-de-Gustavo:Documents lina$
```

# Secure connection to the cluster (**Windows**)

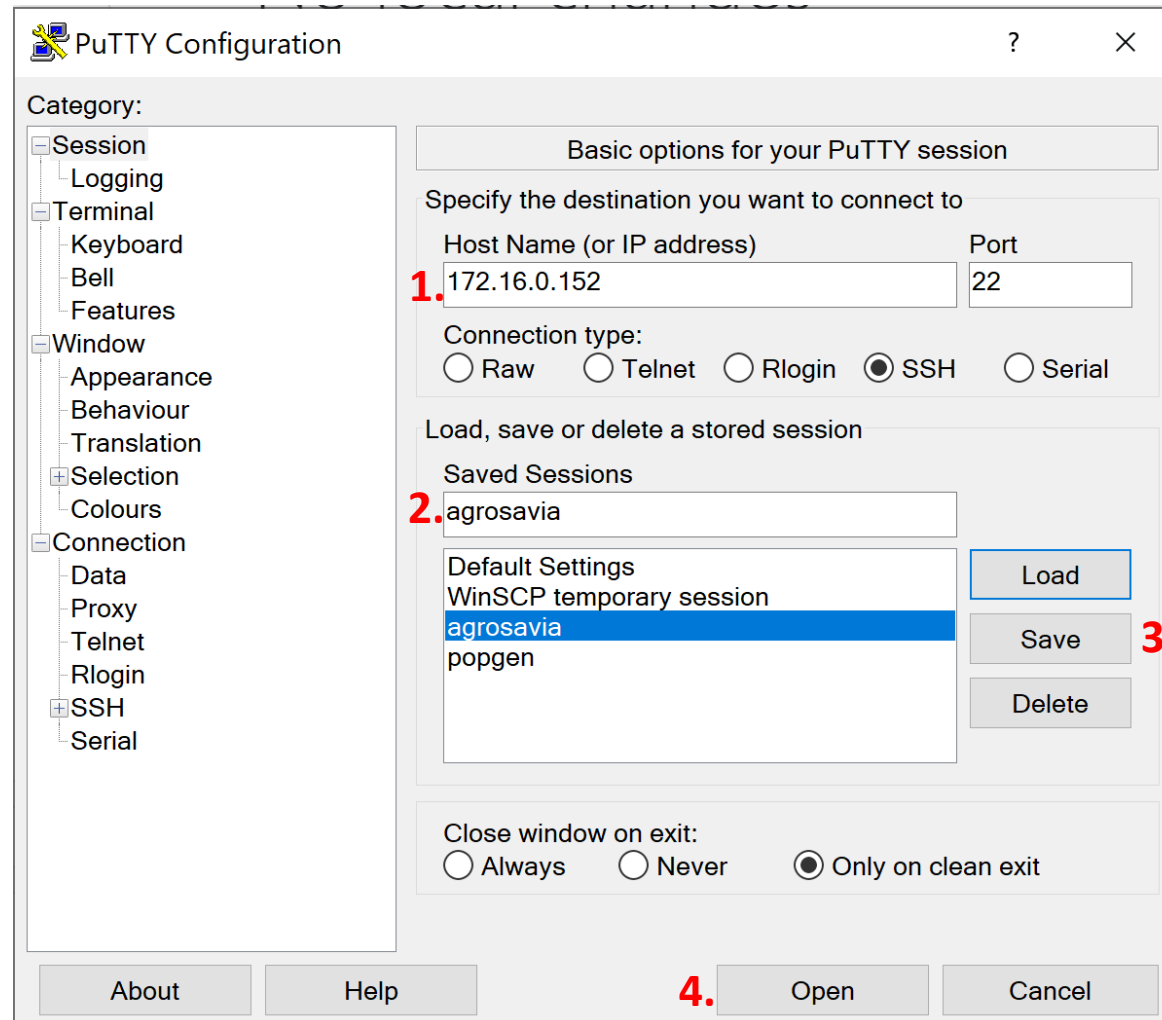
Download and install in your computer PuTTY

<https://www.putty.org/>





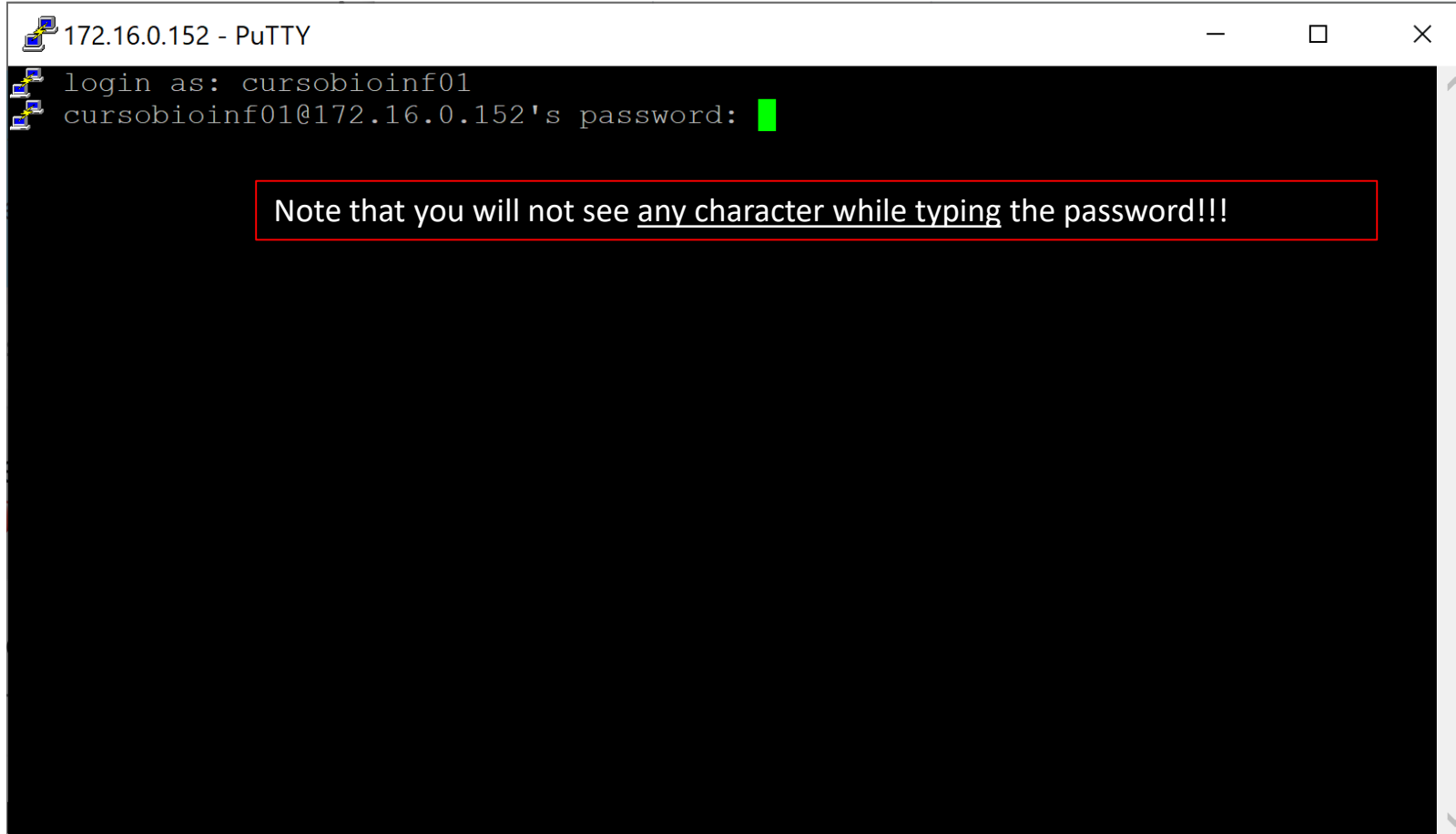
# Secure connection to the cluster (Windows)



172.16.0.152

## Secure connection to the cluster (Windows)

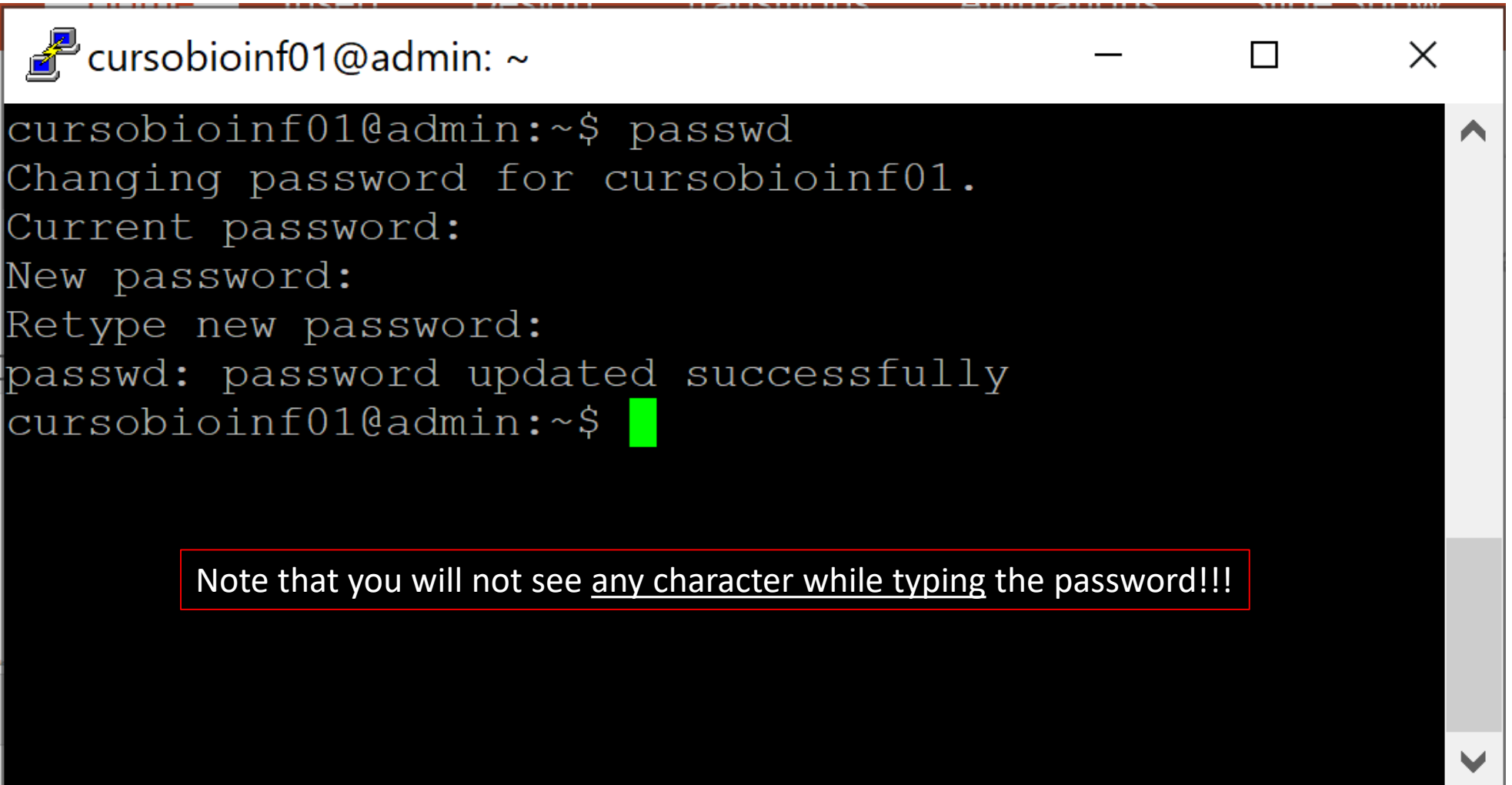
- 1.
- 2.



```
172.16.0.152 - PuTTY
login as: cursobioinf01
cursobioinf01@172.16.0.152's password: █

Note that you will not see any character while typing the password!!!
```

## Important!!! Change your password

A terminal window titled 'cursobioinf01@admin: ~' with standard window controls. It shows a sequence of commands and outputs for changing a password. The steps are numbered 1 through 4 in red. The output shows the password was updated successfully. A green cursor is visible at the end of the last line. A note box is at the bottom.

```
cursobioinf01@admin:~$ passwd
Changing password for cursobioinf01.
2. Current password:
3. New password:
4. Retype new password:
passwd: password updated successfully
cursobioinf01@admin:~$
```

Note that you will not see any character while typing the password!!!

# Transfer files from/into the cluster (**Windows**)

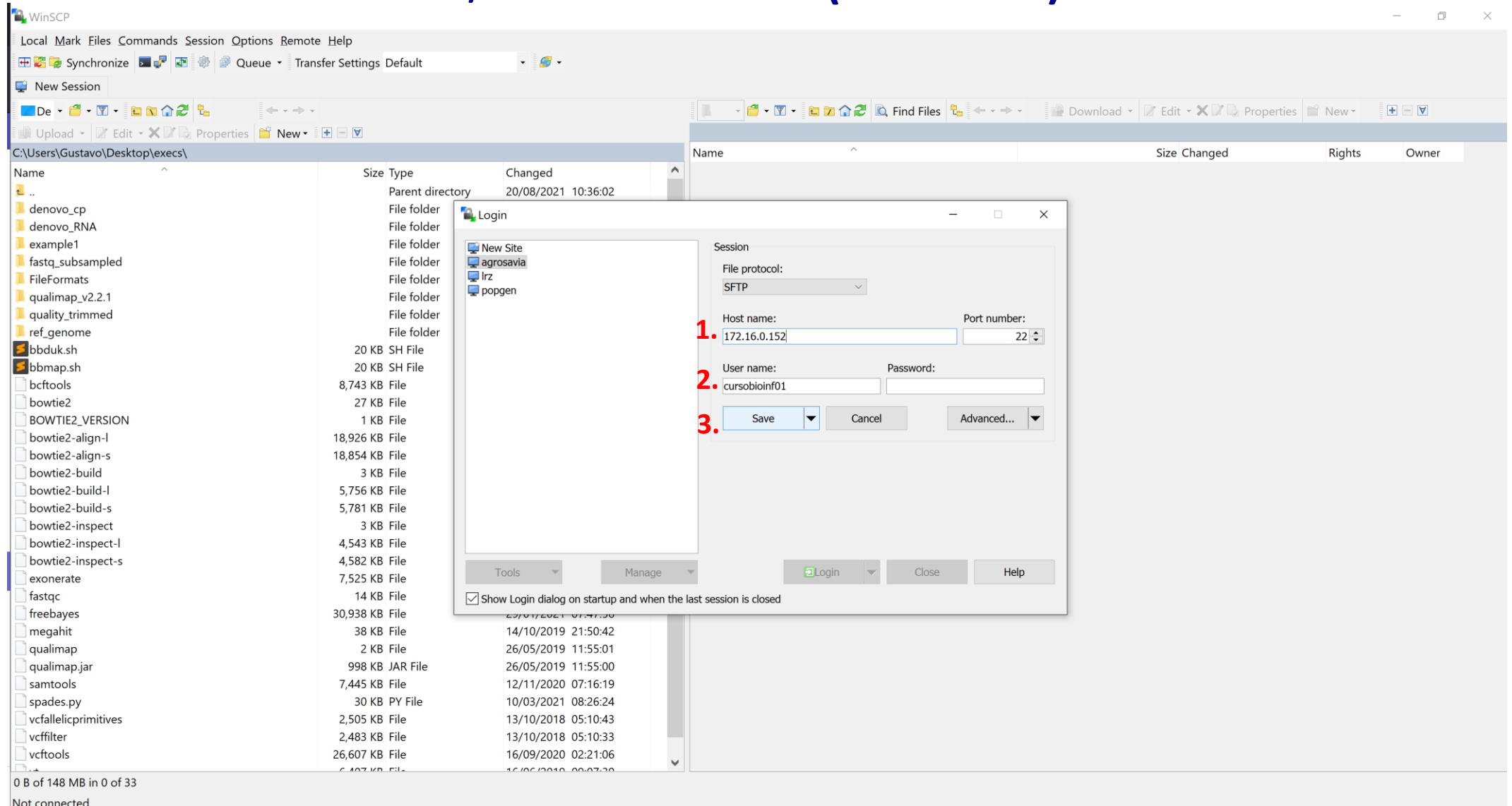
Download and install in your computer WinSCP

<https://winscp.net/eng/download.php>



# Transfer files from/into the cluster (Windows)

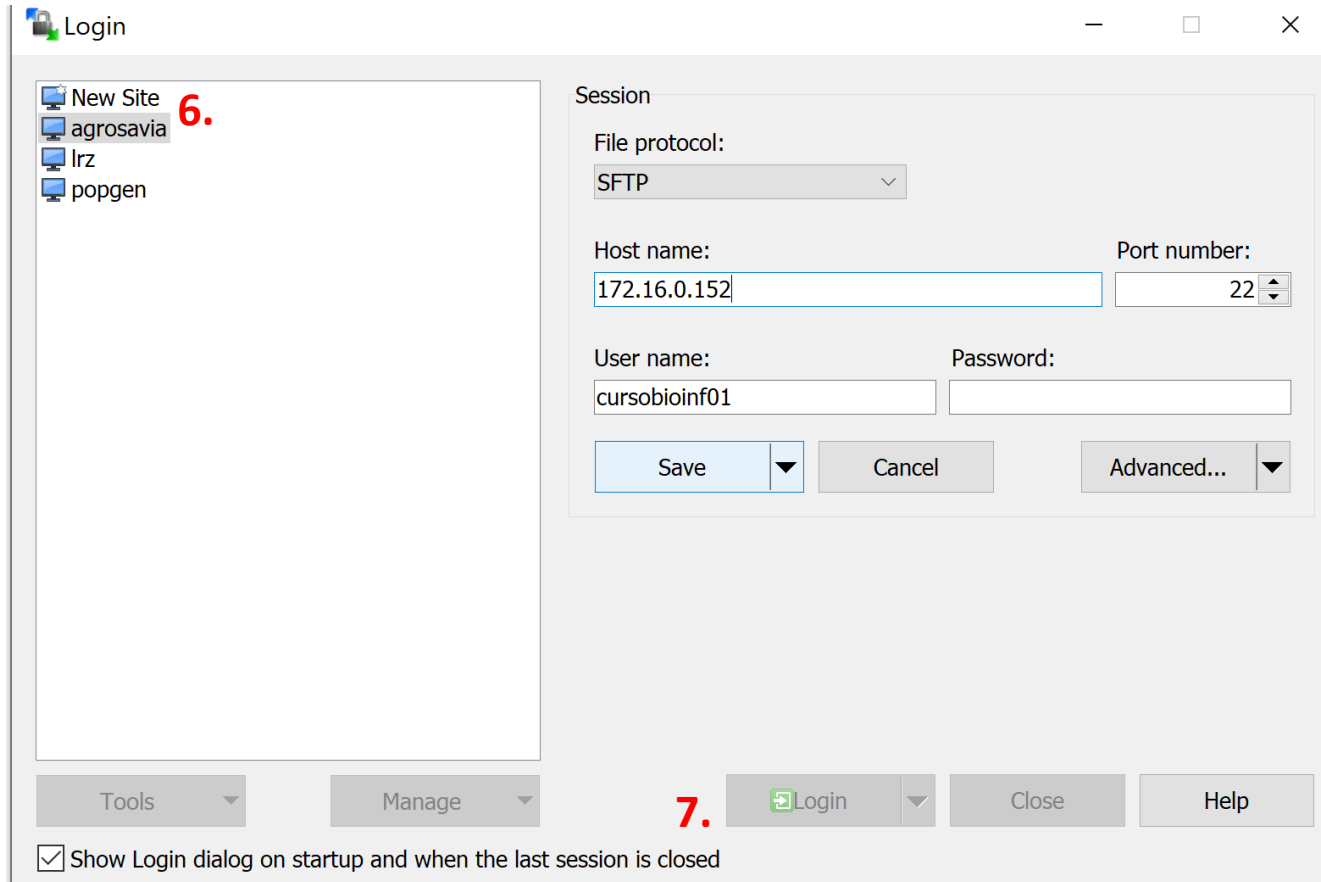
WinSCP



Session 1: Connection to the server | Dr. Gustavo Adolfo Silva-Arias

# Transfer files from/into the cluster (Windows)

## WinSCP



The image shows the WinSCP Login dialog box. On the left, a list of sites includes 'New Site' (marked with a red '6.'), 'agrosavia', 'lrz', and 'popgen'. The 'Session' panel on the right contains the following fields: 'File protocol' set to 'SFTP', 'Host name' set to '172.16.0.152', 'Port number' set to '22', 'User name' set to 'cursobioinf01', and an empty 'Password' field. At the bottom of the session panel are 'Save', 'Cancel', and 'Advanced...' buttons. The main dialog has 'Tools' and 'Manage' buttons at the bottom left, and 'Login' (marked with a red '7.'), 'Close', and 'Help' buttons at the bottom right. A checkbox at the very bottom is checked and labeled 'Show Login dialog on startup and when the last session is closed'.

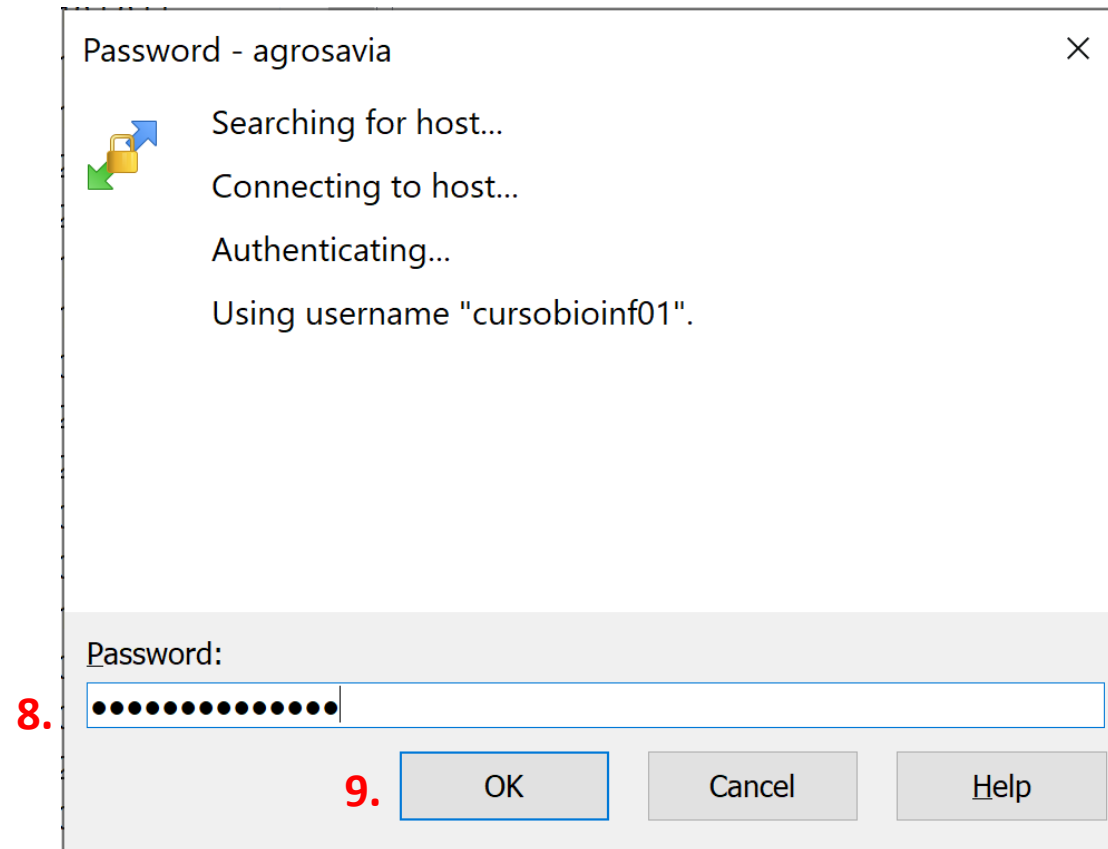
6.

7.

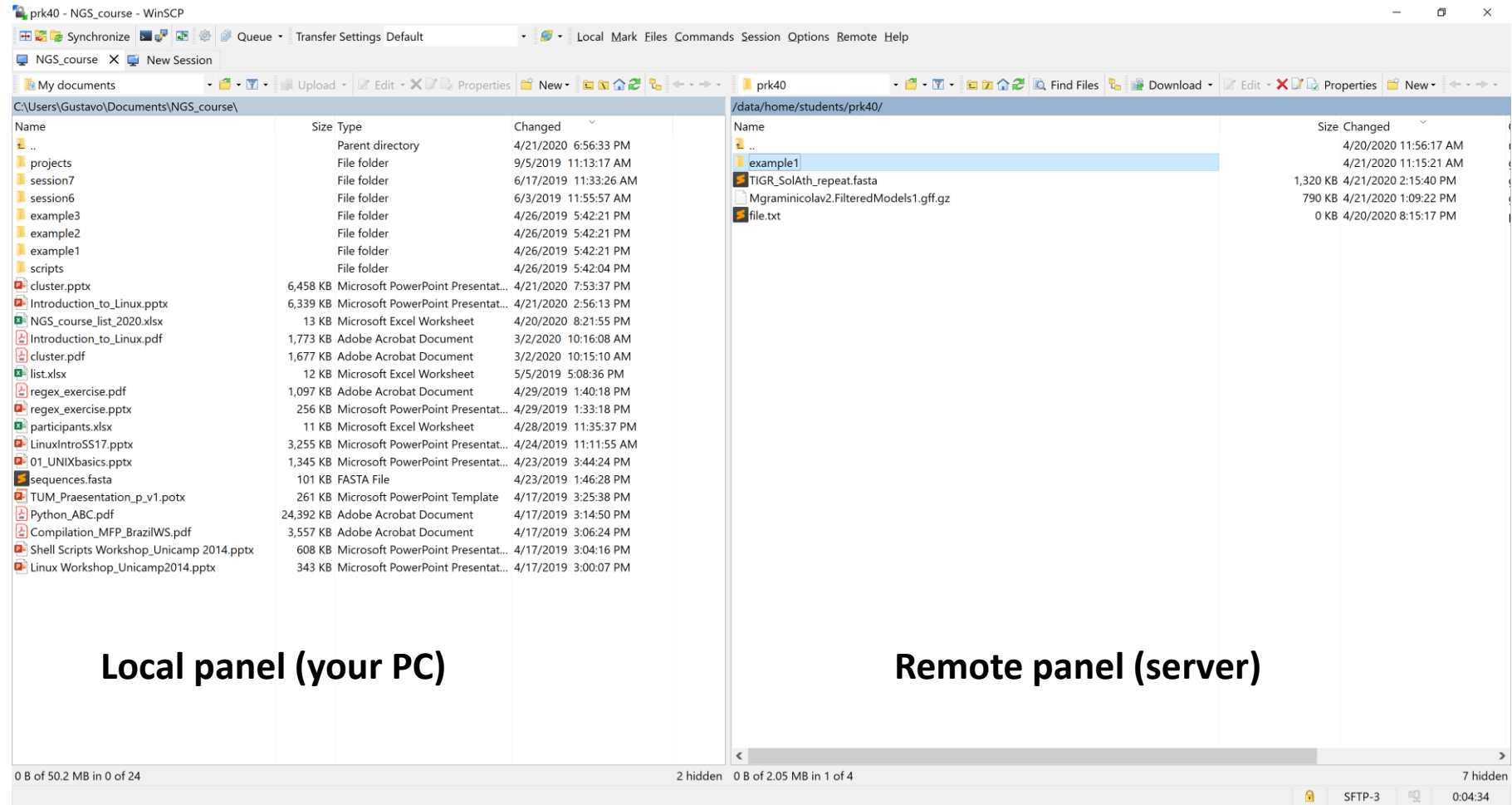
Tools Manage Login Close Help

☒ Show Login dialog on startup and when the last session is closed

## Transfer files from/into the cluster (Windows)



# Transfer files from/into the cluster (Windows)





Everything is on the Wiki 😊

<https://github.com/gsilvaarias/NGS2021-AGROSAVIA/wiki/00.-Conexi%C3%B3n-al-cluster>