Instruction on how to use SSH (revised)

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1 Introduction

The practical classes require the use of Unix environment for some numerical simulations and analysis. Don't worry, you don't have to be very skillful at it. We would like you to complete the in-class practical exercise on the workstations prepared by the CIP-Pool of the physics faculty, so a connection to the workstation assigned to each of you has to be set up beforehand. You are thus going to need a computer account (contact the CIP-Pool Administrator office of the physics faculty if you do not have one) and an SSH client.

2 How to use X2Go Client

X2Go Client turns out to be much more stable. You are advised to replace the previously suggested SSH clients, like MobaXterm, by X2Go Client.
1. Install X2Go Client from `https://wiki.x2go.org/doku.php/doc:installation:x2goclient`.
2. Open X2Go Client and create a new session (Session → New session).
3. Edit the setting as shown in figure 1 accordingly and press OK:
    Session name: CIP-Pool
    Host: your computer ID[1]
    Login: your CIP-Pool account
    SSH port: 22
    Enable "Use Proxy server for SSH connection"
    Proxy server host: login.physik.uni-goettingen.de
    Port: 22
    Enable "Same login as on X2Go Server" and "Same password as on X2Go Server"
    Session type: Choose "XFCE"
4. Launch the session "CIP-Pool" and enter your password.
5. You should see something like figure 2. Open "Terminal Emulator" and proceed to the next step.

3 Getting fun with Unix shell

Let's make a new directory called **practical1** and put the necessary files for the first practical into it:

```
mkdir practical1
```

Change the current directory to the newly created directory: **practical1**.

```
cd practical1
```

Download and unzip the material:

```
wget https://www3.mpibpc.mpg.de/groups/de_groot/compbio2/p15/markov.tar.gz

tar xvzf markov.tar.gz
```

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[1]**Please use the computer ID uniquely assigned to you (e.g. *c215*, check the separate list in case you do not know)**
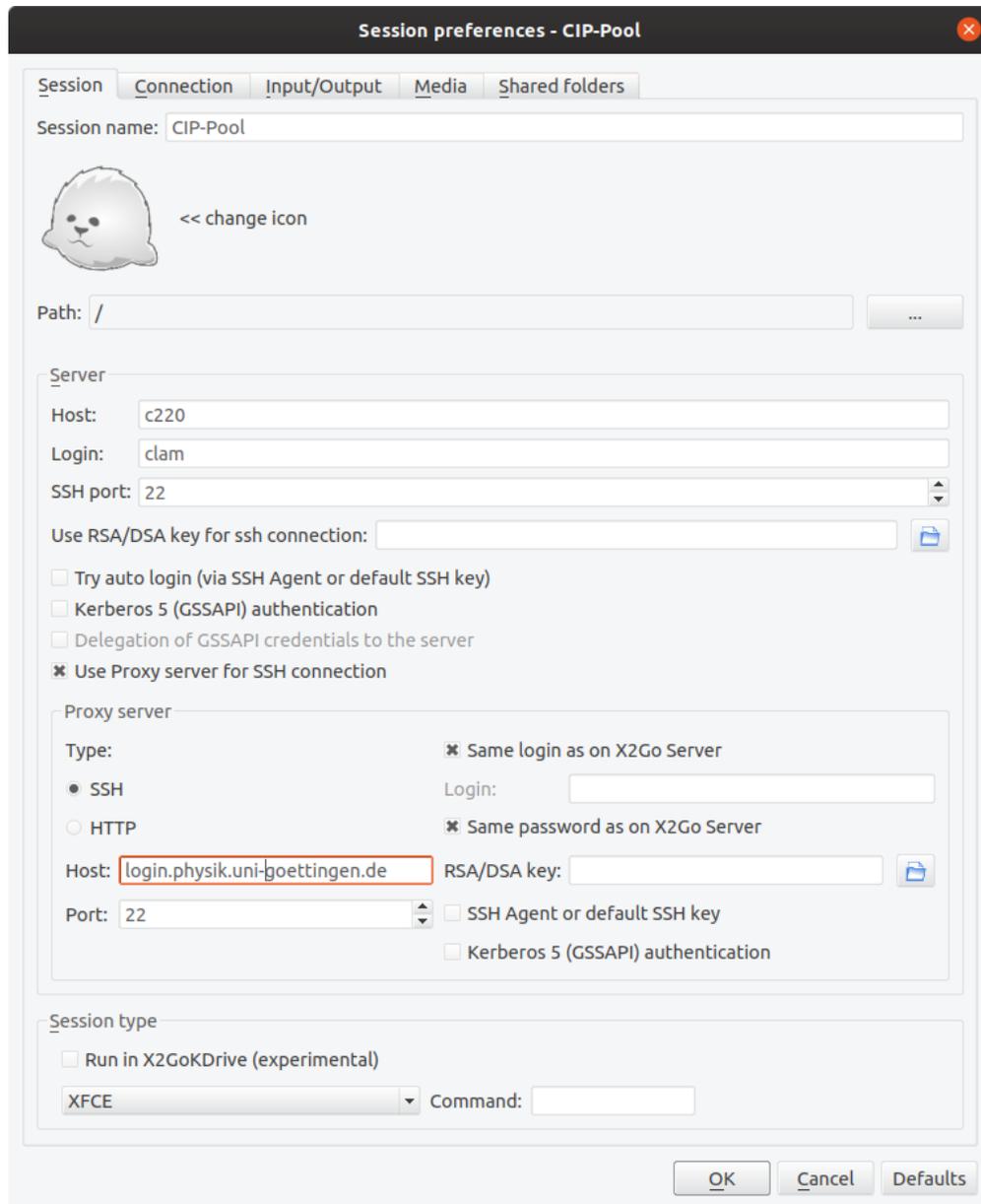
Figure 1: X2Go Client session setting

Take a look at what files are extracted:

```
ls -l
```

You can also test the stability of the connection when having a graphical interface remotely:

```
xmgrace
```

If you can see the above messages, congratulation! It means that you completed the instruction success-fully. You are also encouraged to try out the first practical: `https://www3.mpibpc.mpg.de/groups/de_groot/compbio2/p15/index.html`. Remember to log out by clicking your name at the top right corner and selecting "Log Out". Please make sure you can reproduce every step successfully and don't hesitate to ask if anything is unclear to you! My email is **chun-kei.lam@mpibpc.mpg.de**
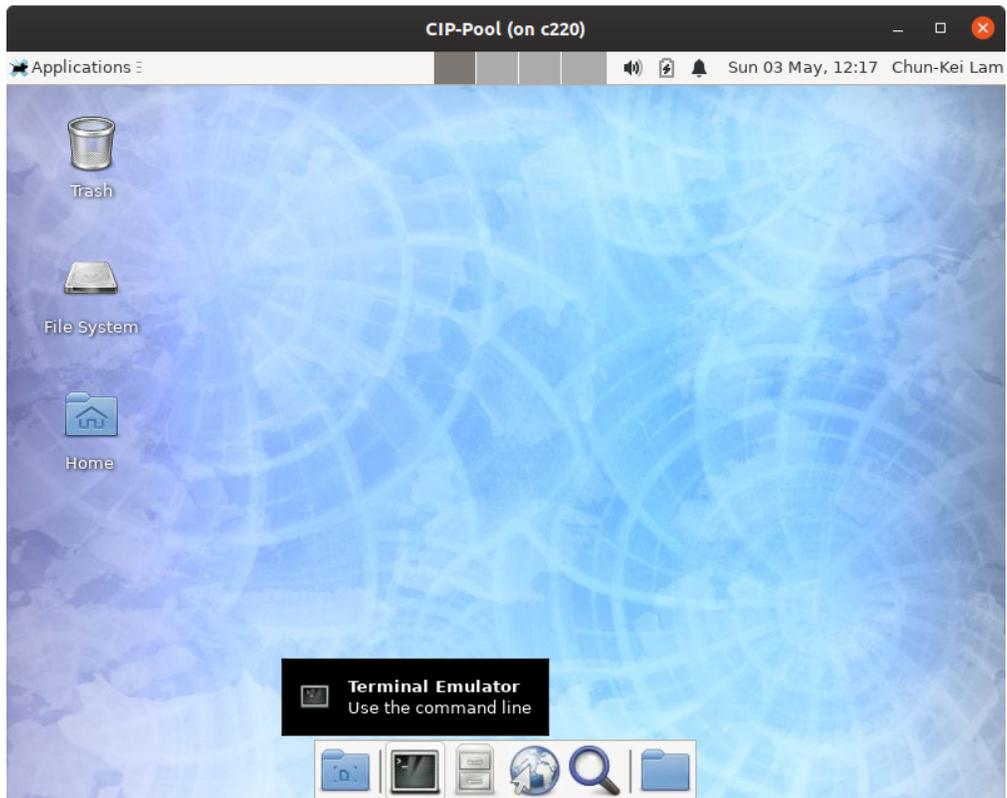
Figure 2: Workstation's desktop

Figure 3: Some basic Unix/Linux operations