

## Using SurfSara HPC Cloud

Since we will be handling a large dataset and because the alignment step requires sufficient compute power, we will make use of the SurfSara Cloud (SurfSara <http://www.surfsara.nl/>). Follow the instructions below to get started.

**You have received a login username ('UN') and password and ('PW'). Everyone uses the password 'change!'. In addition, you also received an IP number. These three items you need to login.**

## WINDOWS USERS

### Method 1 (Windows). Connect with 'Remote Desktop'

Start the Windows application "Remote desktop connection" from the start menu (probably in Accessories).

- Fill in your IP-address that was provided
- Provide your UN and PW
- It is possible that the password needs to be entered twice
- Choose "Use default config" in the "Welcome to the first start of the panel" screen

### Method 2: Connect with Xming and Putty

If, for whatever reason, remote desktop doesn't work you can use Xming and Putty to connect to your machine.

1. Download putty (<http://www.putty.org/>)
2. Download and install Xming (<https://sourceforge.net/projects/xming/>)
3. Start Xming (you will now see the Xming icon in the icon bar).
4. Start Putty.
5. Configure Putty as follows:
  - Fill in the IP-address in the "hostname" box
  - Select SSH > X11 in the menu and enable X11 forwarding
  - You can save the settings in the "Session" menu by providing a name
  - Then select "Open" and login with your UN and PW
6. Type 'xclock'. If you see a clock then everything is ok.

## UNIX/LINUX USERS

### Method. Connect with ssh

- Open a terminal
- Login with `ssh -X -l UN@IP`
- Provide your UN and PW
- Type 'xclock'. If you see a clock then everything is ok.

## MAC USERS

### Method. Connect with Terminal

1. Download and install 'Xquartz' (<http://www.xquartz.org/>)
2. Open OS X Terminal (Programma's ► Hulpprogramma's).

3. Login with `ssh -X -l UN@IP`
4. Provide your UN and PW
5. Type `'xclock'`. If you see a clock then everything is ok.
6. After login type `'echo $DISPLAY'` and write down what you see (e.g. `'localhost:XX.0'`). This may change everytime you login!
7. If you use R then your first command in R should be:
  - `Sys.setenv('DISPLAY'='localhost:XX.0')`
  - Type `plot(c(1:10))`. If you see a plot then everything is ok/
8. Mac users see also: [https://www.youtube.com/watch?v=J\\_8ZsXP1EYk](https://www.youtube.com/watch?v=J_8ZsXP1EYk)

Note:

- If you logout or if your session is terminated then just login again and continue where you left off.
- If you have to terminate R, the first save your session with `q()` and then typing `'y'`. Then, if you restart R, you can continue where you left off.