Instructions to connect to the servers

On your table, you should find a network cable. Once you insert the cable into your laptop, your laptop should automatically receive an IP address via the DHCP server that we are running. If this is not the case, then it most likely is because automatic IP assignment is not activated on your laptop. You will find instructions at the end of this document how to activate it for Linux, Mac and Windows operating systems. Once connected, you are inside our intranet (not the internet; for WiFi internet access, please refer to the programme booklet, "useful information" page).

You have obtained your user ID, the password and the server IP address inside your badge. Now you need to connect to the server you are assigned to using X-forwarding in a terminal environment.

For Linux and Mac users, make sure that X-forwarding is activated on your laptop. Then type:

ssh –X user0x@IP.address

(If you open a graphics window and get the error message "no X11 DISPLAY variable was set", type *export DISPLAY=:11.0* in the terminal.)

For Windows users, we highly recommend the use of the program MobaXterm (https://mobaxterm.mobatek.net/download.html). Please download and install it. When you open MobaXterm, you should click on the SSH tab to open a new SSH session. A new window will appear that looks like this:
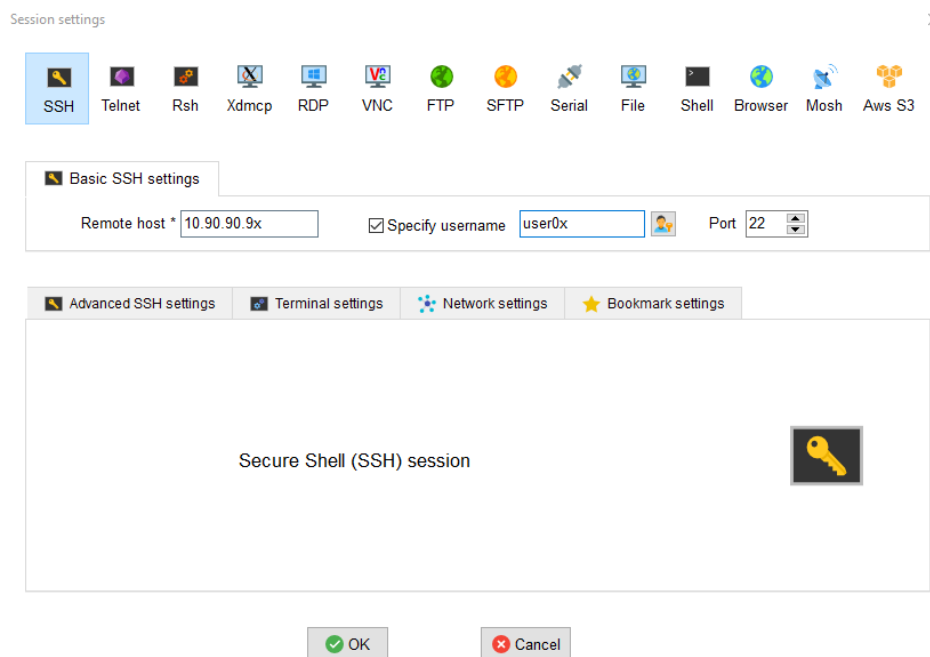
Insert your remote host IP address, tick the box "Specify username", insert your username. Then click OK, and you should be connected to the server via a terminal window that will pop up.

Inside the terminal you have to navigate using commands such as "cd" or "ls". If you are not familiar with this way of navigating, there are online tutorials and help pages, e.g. https://www.unixtutorial.org/basic-unix-commands, http://www.ee.surrey.ac.uk/Teaching/Unix/, https://www.maths.ox.ac.uk/system/files/legacy/2356/basic-unix.pdf.

Any further instructions will be given by the software teachers in their sessions.
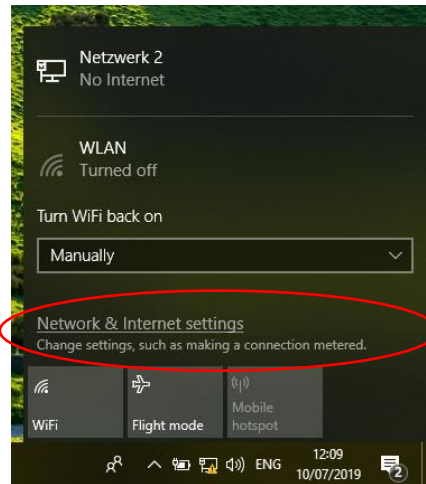
How to activate automatic IP assignment
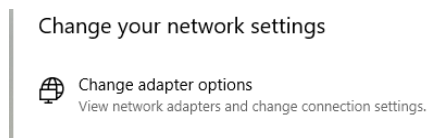
For windows users:
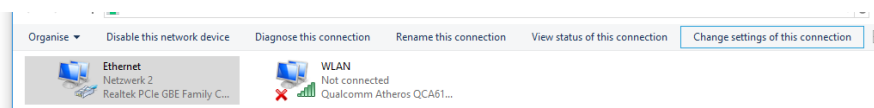
Click your network icon in the task bar
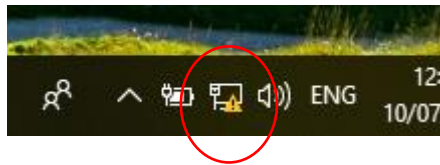
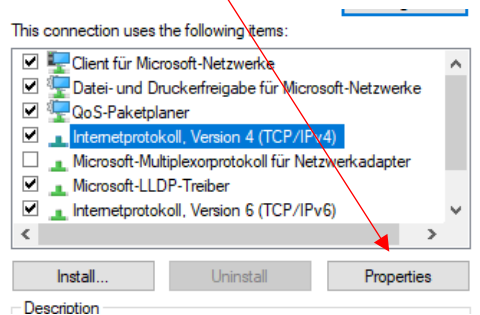In the next interface click on Network & Internet settings

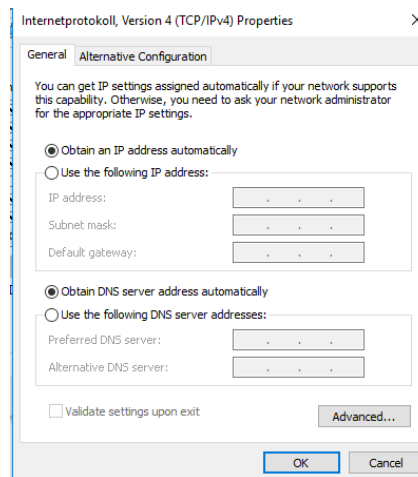The settings window will open. Select Change adapter options:

In the next window, select your Ethernet adapter and press "change settings of this connection"

Select the Internet protocol Version 4 and hit Properties:

Put all settings on "Obtain IP Address automatically"

Apply and close all windows. Plug in the cable now or unplug it and plug it back in.

For Linux users:

If you use the graphical interface you need to select the wired connection and set the IP address to automatic/DHCP. The look depends on your distribution of Linux, but the window will look something like this (probably not in German, though):
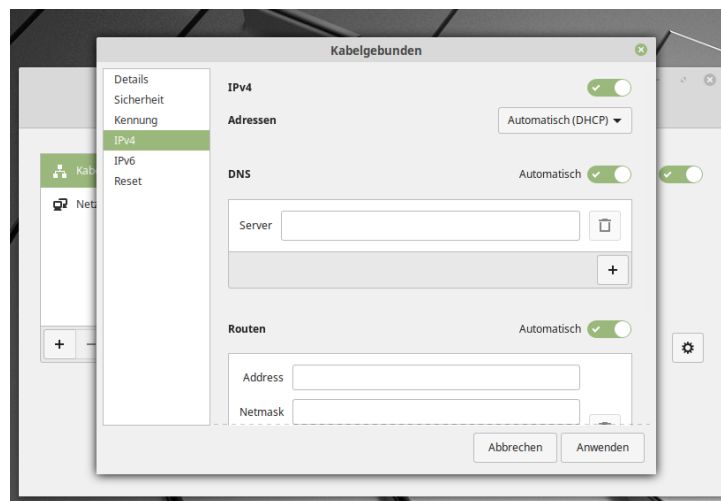
For Ubuntu 18.04 and newer, *netplan* can be used:

sudo   nano   /etc/netplan/01-config.yaml
(or e.g. vim) (or if you already have such a file use that one)

and paste the following lines:
network:
   version: 2
   renderer: networkd
   ethernets:
     eth0: (or whatever the Ethernet adapter is called shown by ifconfig)
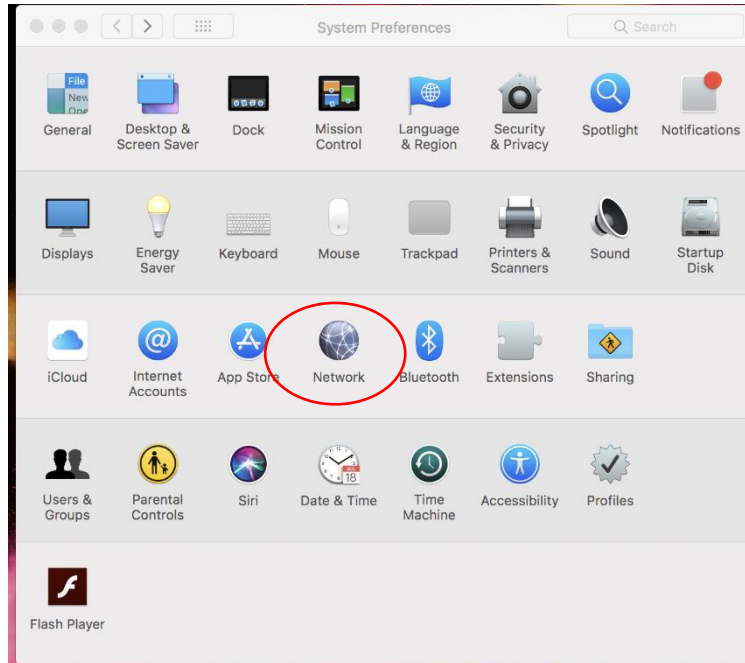   dhcp4: yes
   version: 2
Save the file and type *sudo netplan apply* in the terminal.

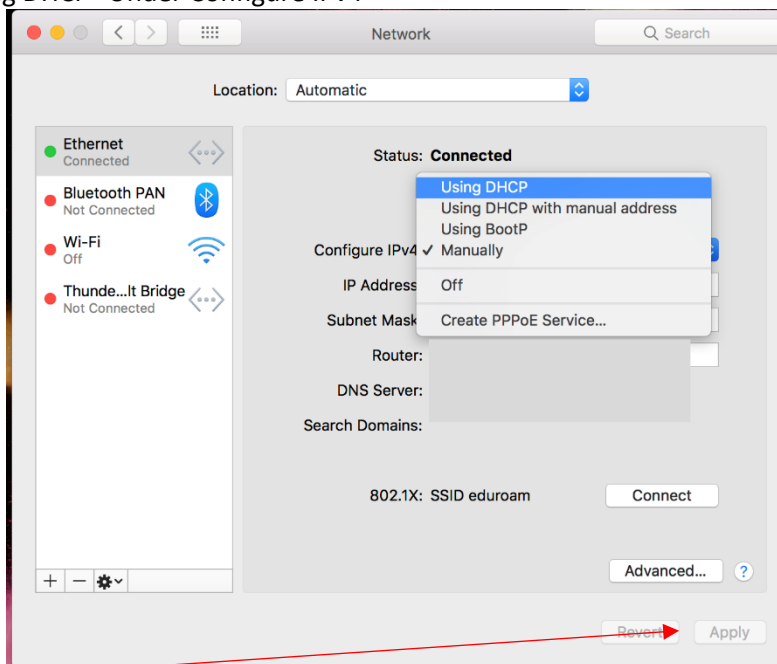**For Apple users:**

Open the system preferences

Then click on Network

Then select "Using DHCP" Under Configure IPv4

And click apply