NCMM IT
HOW TO ACCESS THE COMPUTING FACILITIES FROM HOME

Given the coronavirus outbreak, a large amount of UiO employees will have the possibility, if work permits and presence is not required, to work from home. The purpose of this document is to summarize all of the tools in the IT infrastructure that allow one to continue working from home in an effective manner.

A)For email

You can use the UiO Webmail client to get access to your email, accessible via this link:

https://mail.uio.no/

If you have configured another mail client on your laptop/home PC, it should also work, but the UiO Webmail client is the solution you should resort to, if problems with other clients occur.
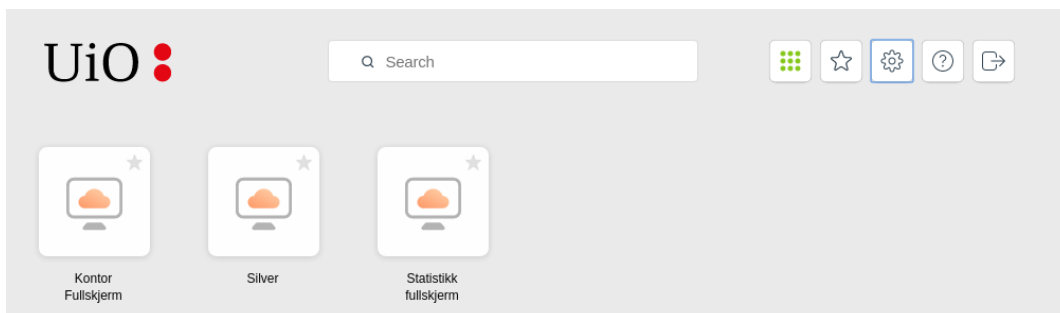
B)Getting access to your files in server home and groupareas

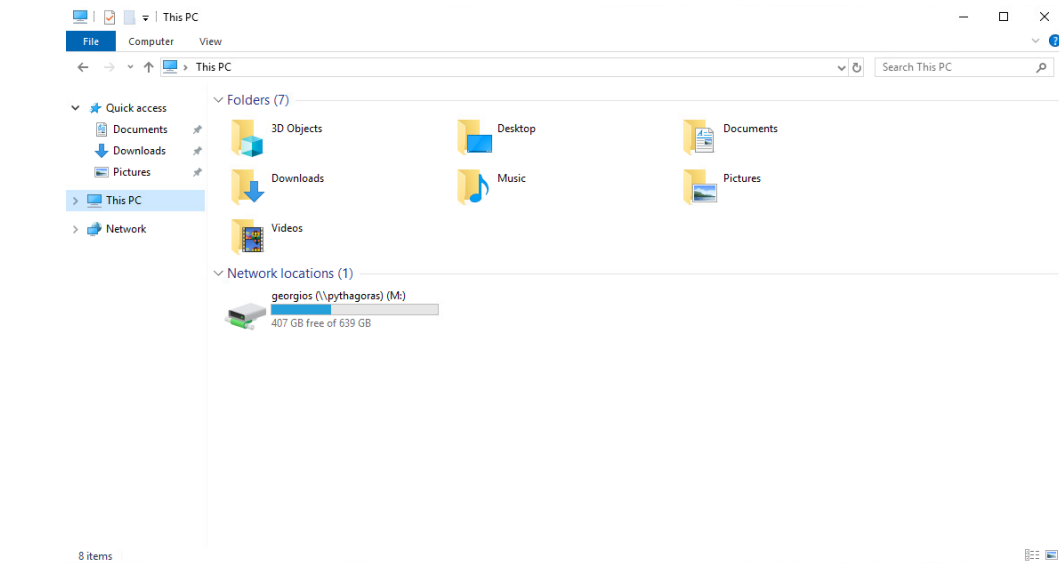Various possibilities exist and are described below:

-**UiO Program Kiosk**: The easiest and fastest way is to use the 'UiO Program Kiosk' facility. It's browser version should give give you a remote desktop type of access to a fully configured Windows 10 desktop, with Office/Adobe and most well known applications installed. To access the web browser version of this, you can go to this URL:

https://view.uio.no/

login with your username and password, maximize the remote desktop session window so that you have an optimal screen resolution and choose the 'Kontor Fullskjerm' icon at the top to initiate the session
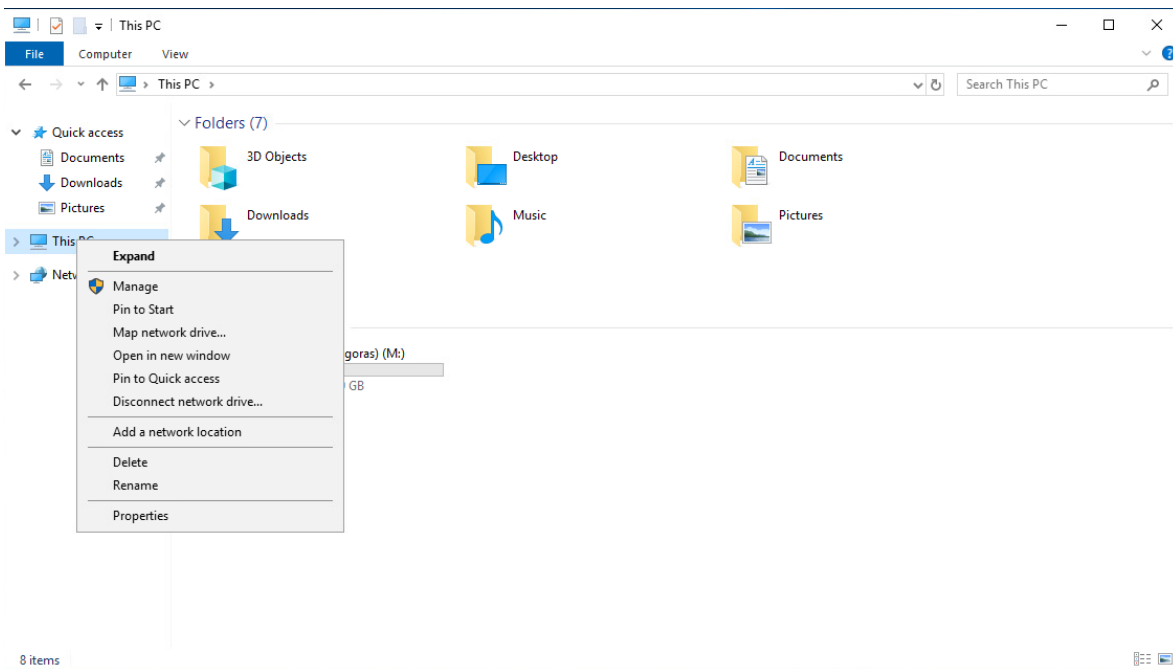

In a few seconds, you should be able to see the Windows 10 environment. Your home area should be automatically mounted as M:Drive in File Explorer (navigate to 'This PC', as shown in the next picture). This environment can also give you access to your server group areas, but you will have to mount them manually.

If you wish to access/mount your group areas, you need to know:

-The name of your group area
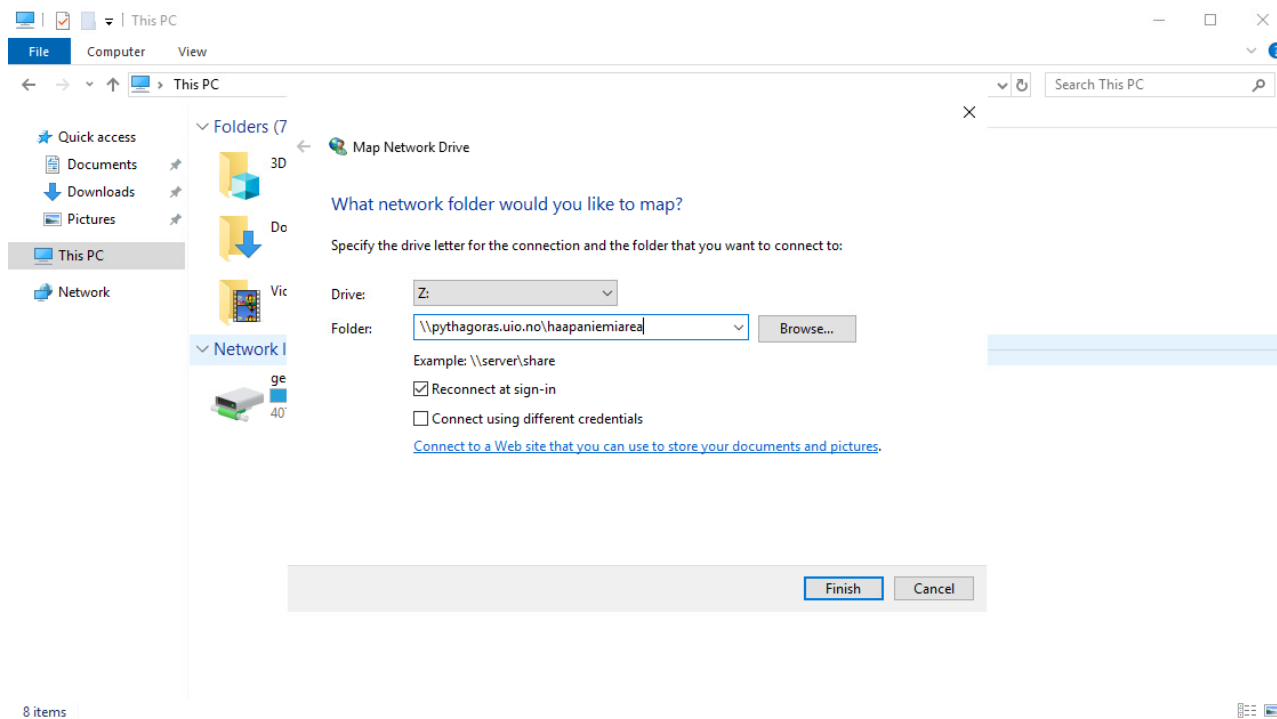
-The name of the server your group area is located

For example, if your group area is called 'haapaniemiarea' and you know it is located in the 'pythagoras.uio.no' server, to access your group area, go to your File Explorer, navigate to "This PC", mouse right click on it and then from the menu choose 'Map Network Drive...'

In the 'Map Network Drive' menu that will pop up, choose a drive name (anything other than M:) and at the 'Folder:' field type the string:

\\pythagoras.uio.no\haapaniemiarea

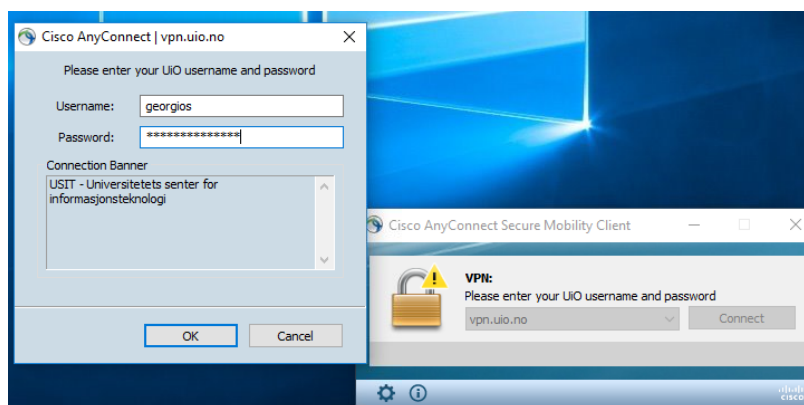(the general convention is \\SERVERNAME\GROUPAREANAME)

If you do that and then click 'Finish' you should then see a new File Explorer window popping up with the contents of your group area, so you can access them directly from that environment.

-**UiO VPN**: The 'UiO Program Kiosk' uses remote desktop technology to allow file access in a standard environment that runs remotely. If you wish to access those files directly from your laptop/home PC (for instance, you need access from a special program that does not exist in the remote desktop standard environment), you have to install and use the UiO Virtual Private Network facility. This is applicable to Microsoft Windows and Mac OS X users. Linux users do not need the VPN tool and can access the files via sftp/ssh directly (see relevant section).
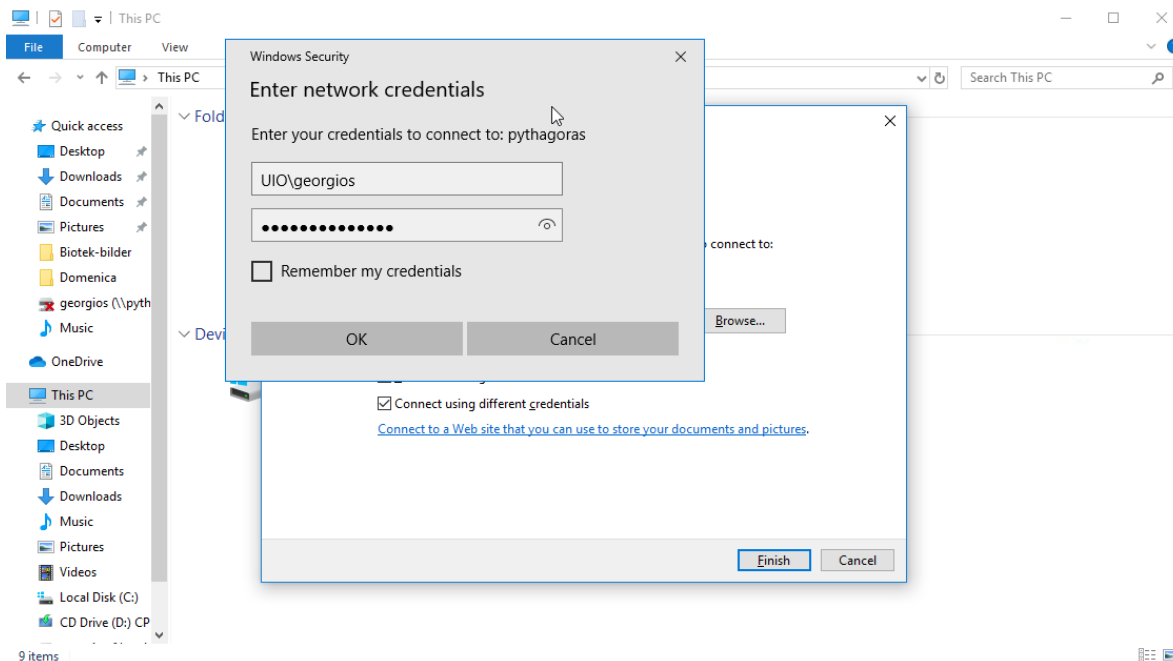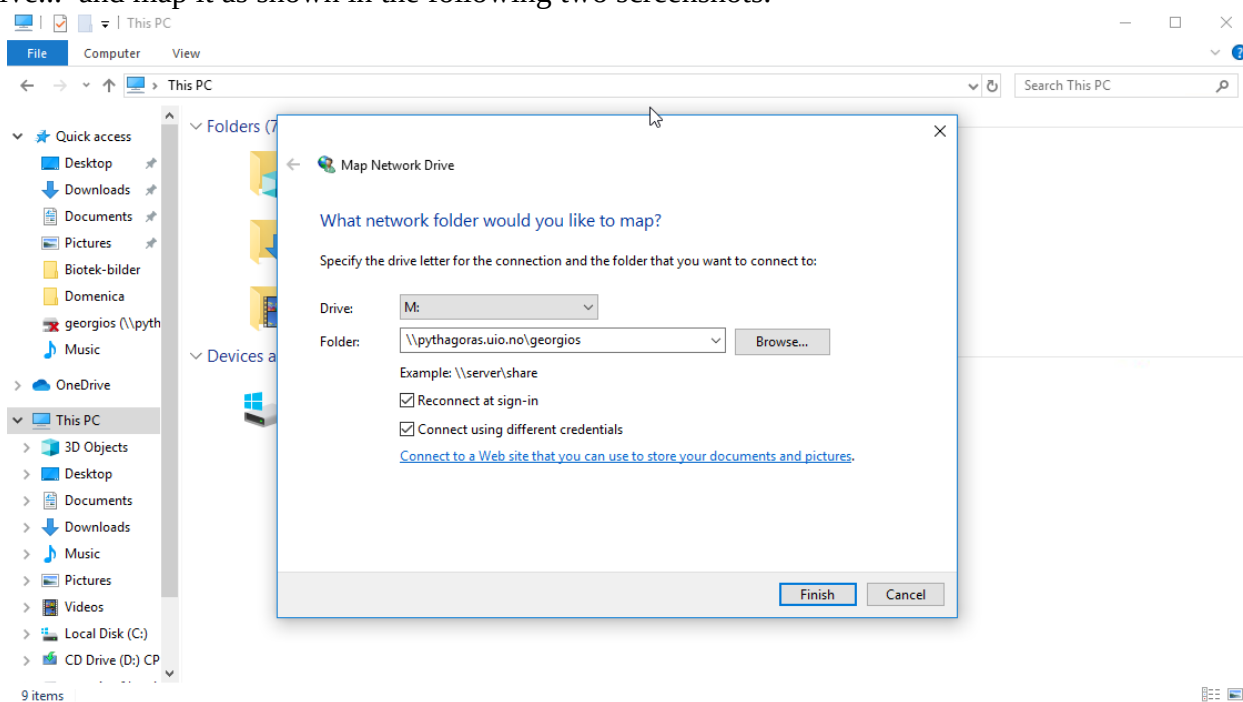
If you are a **Microsoft Windows user**, Local IT can help you install the AnyConnect VPN client on your machine by following these instructions:
https://www.uio.no/tjenester/it/utenfra/vpn/windows/index.html

Once the VPN client software is installed, you can connect to it with your UiO username and password, as shown above. Once the VPN client is connected to vpn.uio.no, your home machine should be part of the UiO network. As a result, you should be able to access home and group areas just like your office machines, as described earlier in the 'UiO Program Kiosk' section. Two crucial differences rename though.

The first is that your home area is not automatically mounted as the M: drive. You need to do that by opening a 'File Explorer'window, navigate to 'This PC', then right click on, choose 'Map Network Drive...' and map it as shown in the following two screenshots.

The above screenshots show that when mapping via VPN, we need to specify the home area in the 'Folder' field in the following convention:
\\SERVERNAME\USERNAME
so, for example, if my username is 'georgios' and the servername is pythagoras.uio.no, I type:
\\pythagoras.uio.no\georgios

In addition, we need to tick the field 'Connect using different credentials' and then specify (following screenshot) that I am part of the UiO domain, my username and my password (UIO\georgios). If one does not tick that field and depending on the configuration of the home machine, the operation is likely to fail, as the machine will attempt to authenticate you as the local user (which is different than the UiO user).

To map a group area with an active VPN connection, you need to know
-The name of your group area
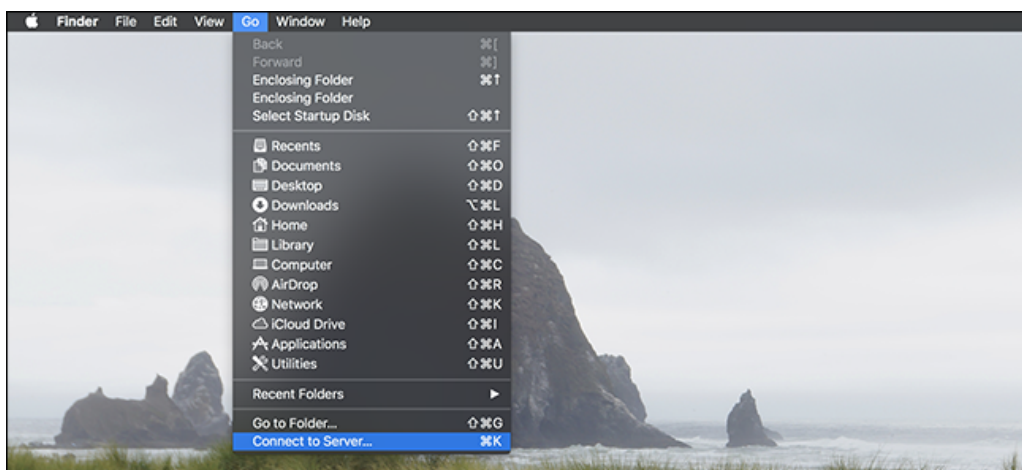-The name of the server your group area is located
and follow the same steps with ticking the field 'Connect using different credentials' as described above. The convention is:
\\SERVERNAME\GROUPAREANAME
(example: \\perun.uio.no\hudelarea to map the hudelarea on the perun server)

If you are a **Mac OS X user**, Local IT can help you setup the VPN client on your computer by following these instructions:
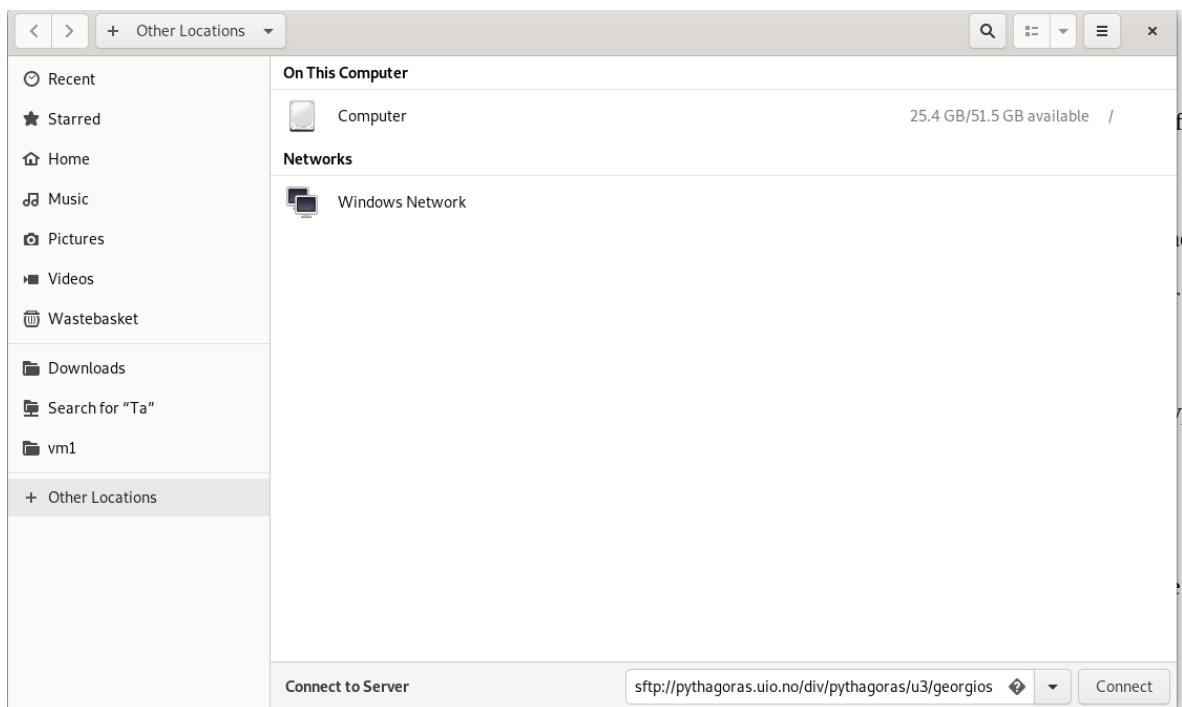https://www.uio.no/tjenester/it/utenfra/vpn/mac/

Once this is done and your VPN connection is active with your UiO Username and Password, to map home and group areas, navigate from the top menu ("Go"→"Connect to Server..."). In the window that will pop up:
- If you would like to map your home area, type: smb://pythagoras.uio.no/USERNAME in the "Server Address" field. For example, if my usename is georgios, I would type: smb://pythagoras.uio.no/georgios
- If you would like to map your grouparea, type: smb://SERVERNAME/GROUPAREANAME in the "Server Address" field. For example, if the "hudelarea2" grouparea is on the perun.uio.no server, you need to type: smb://perun.uio.no/hudelarea2
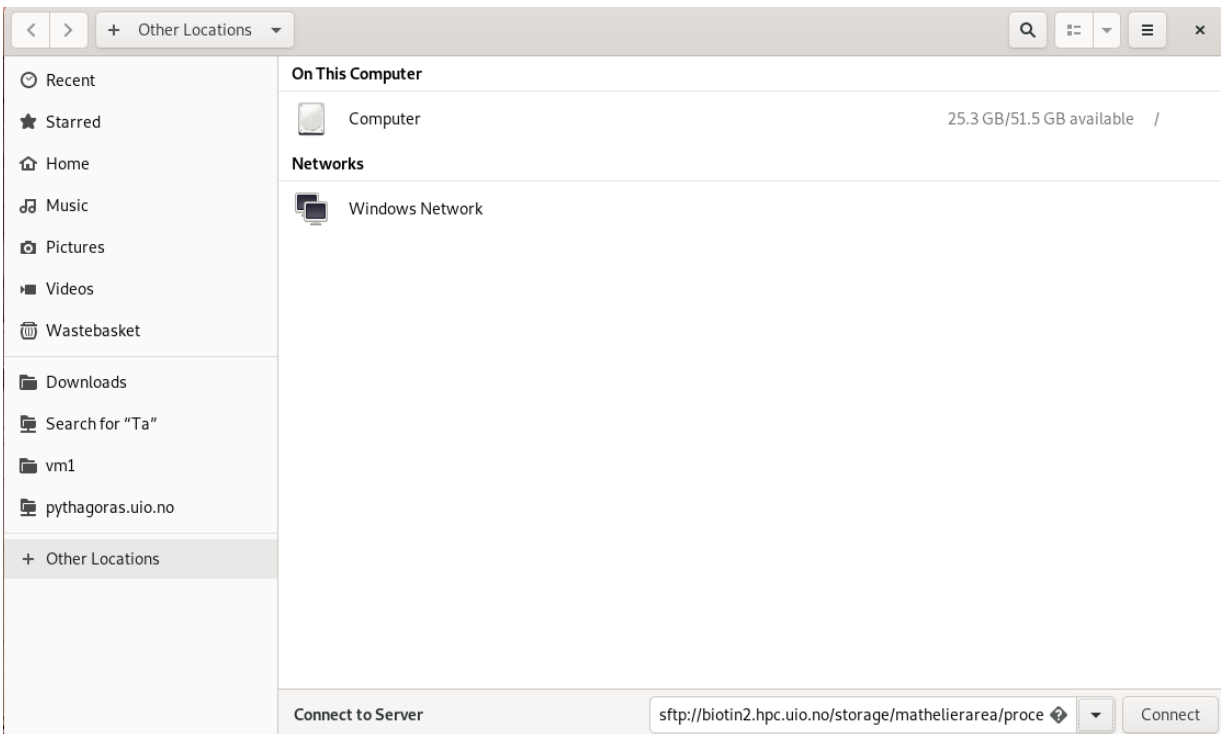
-SFTP/SSHFS: While the 'UiO Program Kiosk' and UiO VPN solutions concern remote file access for Microsoft Windows and Mac OS X users, Linux users have embedded functionality that can provide file access without the need for neither of these solutions. All they need to do is to know how to map these areas using the Nautilus File Browser. The following instructions work for Fedora Linux and RHEL 7/8, as these Linux distributions are the officially supported ones at the University of Oslo. The instructions also assume that you use the Nautilus file browser which is the standard in the GNOME desktop environment. Nevertheless, the instructions should also work for other Linux distributions or desktop environments.

To access home and group areas from Linux, launch the Nautilus browser ('Files') and from the left side navigate to the 'Other Locations' area. Once this is done at the bottom of the window, you can type in the 'Connect to Server' field, the following:
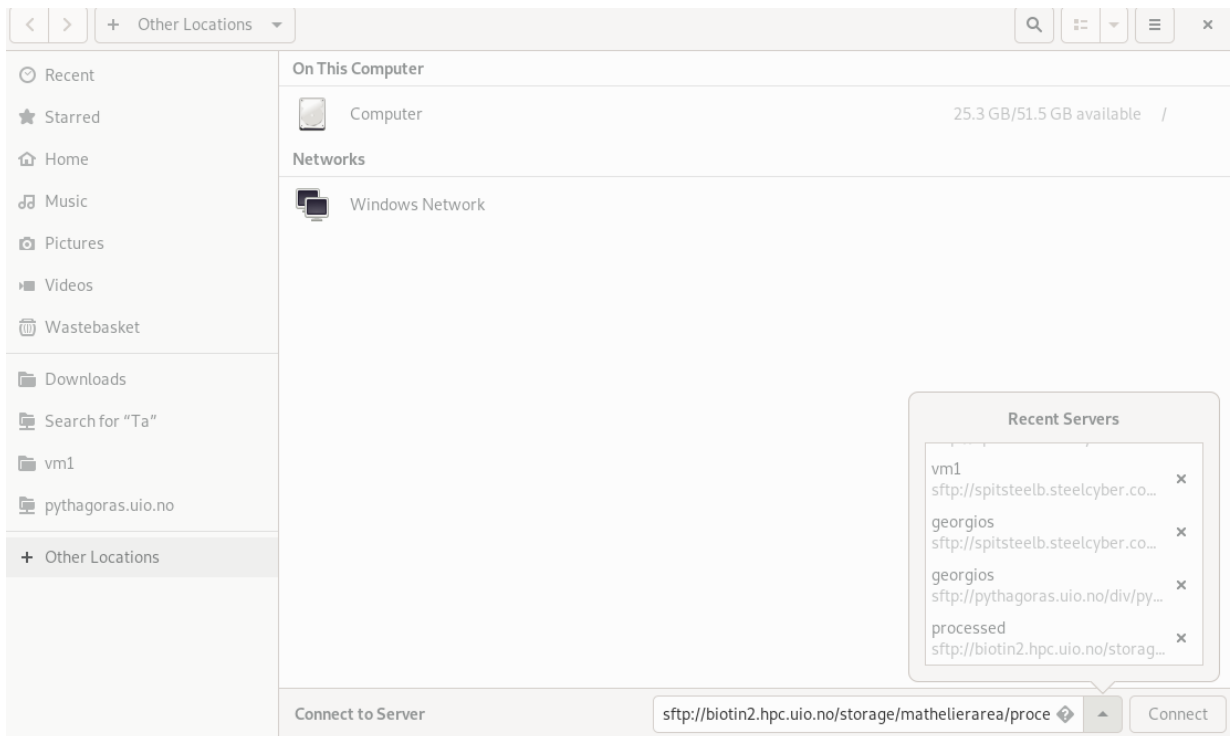
- To connect to your home area: SSH login in to an NCMM server (example biotin2.hpc.uio.no or login.uio.no) and then type 'pwd'. You should then get a response from the shell that provides the path of your home area. To reach the home area, you can type something along the following convention: sftp://pythagoras.uio.no/HOMEAREAPATH
  For example, if the home area path for user georgios is: /div/pythagoras/u3/georgios, we type:
  sftp://pythagoras.uio.no/div/pythagoras/u3/georgios
  and hit the "Connect" button.

- To connect to your group area: You will need to know the server name and the full path of your area. For instance, if the group area I would like to access is in the server 'biotin2.hpc.uio.no' and its absolute path is '/storage/mathelierarea/processed', I need to type:
  sftp://biotin2.hpc.uio.no/storage/mathelierarea/processed
  and hit the "Connect" button.

Note that to avoid repeating this process every time you disconnect from the area or restart the computer, the Nautilus browser keeps track of recently connected shares. To access the record of these recently connected server shares, navigate to the 'Other Locations' area from the left hand side and click on the arrow at the end of the 'Connect to Server' field.

If you then click on the list of the Recent Servers, you do not have to type that long string again, it auto-fills the field and then you can press the "Connect" button.

C)Accessing the NCMM Scientific Computing facilities

All of our Scientific Computing facilities as described by our online wiki:
https://wiki.uio.no/medicin/ncmm/IT/index.php/Main_Page

remain available without restrictions from all over the world. The primary means of accessing these services is by using the SSH protocol. Linux and Mac OS X users have embedded ssh clients that work fairly well with the services. Windows users can use utilities like MobaXterm:
https://mobaxterm.mobatek.net/
to connect to these services.

D) Virtual meetings and digital recording of lectures ("Forelesningsopptak")

To arrange virtual meetings, most widely used programs such as:

- Skype: https://www.skype.com/en/
- Microsoft Teams: https://products.office.com/en-us/microsoft-teams/group-chat-software
- Whereby: https://whereby.com/

work fairly well for organizing interviews, small workshops and replacing physical meetings. The thing to keep in mind is to ask your meeting participants to use headphones and if possible a wired connection in a quiet room, to achieve best results.

The University of Oslo also has facilities for teachers/course organizers to record and stream lectures via the UiO Vortex web pages. Information on how to use the facilities can be found online here:

https://www.uio.no/english/services/it/video-sound/recording-lectures/